U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-278 682

Environmental Information Resources for State and Local Elected Officials General Reference Guide

Rivkin Associates, Inc, Washington, D C

Prepared for

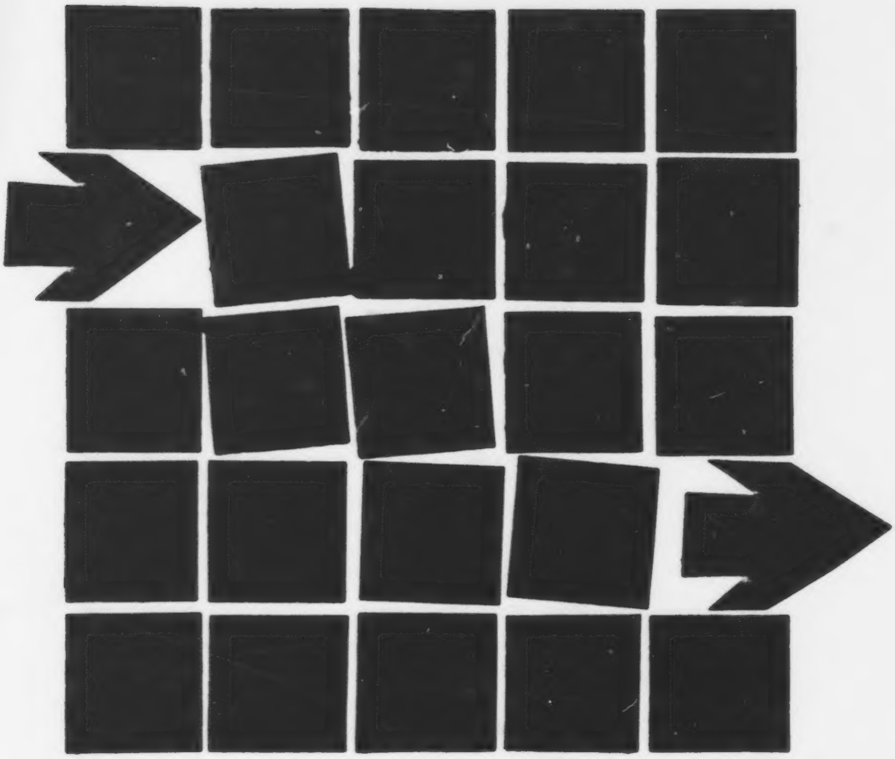
Environmental Protection Agency, Washington, D C Library Systems Branch

Feb 77

PB 278 682

General Reference Guide

ENVIRONMENTAL INFORMATION



resources for state & local elected officials

U.S. Environmental Protection Agency
Office of Regional Intergovernmental Operations
Library Systems Branch

National Oceanic and Atmospheric Administration
Environmental Science Information Center
February 1977

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NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No. PB278682
4. Title and Subtitle Environmental Information Resources for State and Local Elected Officials: General Reference Guide		5. Report Date February 1977
		6. Performing Organization Code
7. Author(s) Rivkin, G.W. and Brecher, S.L.		8. Performing Organization Report No.
9. Performing Organization Name and Address Rivkin Associates, Inc., Washington, D.C.		10. Work Unit No. (TRAIS)
		11. Contract or Grant No. 68-01-4235
		13. Type of Report and Period Covered
12. Sponsoring Agency Name and Address U.S. Environmental Protection Agency, Office of Regional Intergovernmental Operations, Library Systems Branch and Natl. Oceanic and Atmospheric Admin., Environmental Science Information Center.		14. Sponsoring Agency Code
15. Supplementary Notes		

16. Abstract

This is one of a series of guidebooks for helping elected officials at the State and local levels and staff aides find their way through the maze of information about environmental matters with which they must deal. Other guidebook subjects are General Reference Guide and Solid Waste.

17. Key Words Environmental Information, Guidebook, Environmental Reference Sources, State and Local Officials, Surface Mining.	18. Distribution Statement

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	141	PCA07-A01

Form DOT F 1700.7 (8-72)

Reproduction of completed page authorized

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INTRODUCTION

This document is a guide to sources of environmental information especially prepared for elected state and local officials and their staff aides. It has been commissioned by the Environmental Protection Agency as one means of assisting public officials to utilize relevant factual and analytic material in major legislative and administrative decisions. The guide is intended as a reference work and is capable of up-dating and revision by its producers and users.

Although America's concern with environmental issues did not begin with NEPA, passage of the National Environmental Policy Act of 1969 has led to creation of a host of legislation, agencies, and programs at all levels of government. Environmental concerns now represent a major component of the public business of this country. Considerable research by governmental bodies, private institutions, and individuals exists on a broad spectrum of environmental subjects -- from toxic wastes, to air and water quality, to the impacts of physical facilities (e.g. highways or housing) on land and water use. The concern for environment has spawned, moreover, literally thousands of publications (from scientific treatises to periodical literature for the layman) on environmental subjects. It is fair to say that an explosion of information on matters dealing with the environment has occurred.

For the elected official in state and local government, this vast array of environmental information is at once a "resource" and a "problem." From a resource standpoint, access to relevant information and opinion compiled by others on a particular subject can enable the official to make better public decisions...when formulating legislation, when deciding on the merits of a particular capital works project, or responding to a constituent's inquiry.

The legislator or staff can seek and obtain information from the array of available sources to broaden the basis for decision-making in the following general areas:

1. The state of knowledge or technology assessment in a particular environmental subject.
2. The nature and background of legislation and administrative responsibility in the subject area within the Federal government and other jurisdictions.

3. Experience of other jurisdictions with comparable issues and problems.
4. The body of opinion or commentary on a particular environmental subject.

But the search for information is no easy matter. It can be like traversing a maze, with success coming only to the initiated or the hardy. For the array of sources on environmental information is as complex as the subject matter itself. Problems can arise in framing the specific question or questions for which information is needed and to which the "sources" must respond. Indeed, many questions -- especially those relating to environmental issues within a local area -- often require on-the-scene depth investigations or a special interpretive effort over and above any external searches for data and opinion. Even if relevant material is obtained from an information search, someone -- the legislator, his staff, consultants, etc. -- must provide a conceptual or analytic bridge to the local context before the material becomes useful.

Problems also arise in selecting the appropriate sources from the vast assemblage available and (of special concern to a legislator with immediate needs for data) in obtaining a relevant answer within a reasonable period of time at reasonable cost. Although important material, bearing directly on public decisions may be "out there," the effort to find it and interpret it for the legislator's needs can be frustrating, time-consuming, and inconclusive.

If an information search is to produce results, the legislator or his staff must clearly determine in advance what to look for, where to go for information, who should conduct the search, how to perform the investigation, and how much time and money the process warrants.

In an effort to help that process, EPA has commissioned this guide. The guide is directed towards illuminating one facet of the problem -- the sources. Information on where to get information is necessary because the environmental field covers such widely-ranging subject matter and because the sources are so numerous and disparate. The field is always in flux, growing and shifting in emphasis and locus. The forms in which information is to be found and the sources who possess it vary widely.

Subject matter. The elected official whom the guide is meant to help has policy- or decision-oriented interests. His information needs may be intense, but short-lived, as decisions are made and new issues come into focus for resolution. Whether the legislation seeks to inform himself or asks aides to prepare briefings for him, he may need a wide array of materials that bear on his interest, some of them quite specialized or technical.

With this in mind the guide encompasses environmental information in its broadest sense. The subject matter can be grouped in three general categories, according to the central concerns of the respective sources. These are:

1. the scientific and technical disciplines that study each of the elements of the natural environment and their relationships with each other (e.g. air, water, land, animals and plant life, phenomena such as earthquake, climate, et al).

2. the cross-disciplinary fields of analysis concerned with interrelationships between the natural environment and human activity. This literature may be problem- or product-oriented, focusing on natural resources as the basis of economic activity. Effects of environmental quality on human health and well-being fall within this second category. So do impacts on the natural environment of such human activity as use of resources or settlement patterns.

3. the body of material related to governmental action in the environmental field. With the rise to public prominence of such issues as pollution abatement, resources management and environmental impacts of governmental programs, the literature in this area has burgeoned in recent years. It includes data and interpretations which form the basis for public policy, the bills and legislation and regulations which embody the policy, court cases and judicial interpretations which elaborate and refine the understanding and applications of the law, and the development of programs and projects designed for implementation of the policy. This legislature also includes measures of cost, evaluations and effectiveness, and studies of the political aspects of environmental decision-making itself; along with interpretations for dissemination to the interested lay public. This large category of information

centered about public policy in the environmental field cuts across more disciplinary lines than the others. Its subdivisions are many, as are the potential uses of the information produced.

Many sources, many forms. Each of these categories has its raw data and its summary or interpretative reports, its primary and secondary literature and its leading edge of work-in-progress.

There are assessments of environmental base conditions, for example, and records of pollution levels monitored for regulatory purposes. There are inventories of natural resources, and "raw" measurements that establish relationships observed in research projects. Information may be associated with one specific time, a series of measurements over time, or extrapolated into the future. It may apply to specific, localized situations or it may be aggregated for wider territories. Data may be available on maps which display their spatial implications or in reports which summarize, interpret their meaning or simply present compilations of statistics. Some material is published and some is not.

Information developed within and for the academic, industrial or governmental research community may not be suitable for use by the policy-maker in government. Material written for the lay public may be lacking in authority or detail desired by the scientist or technical specialist. Water quality data suitable for Federal long range policy deliberations or standard setting may be too imprecise and outdated for state or local officials carrying out regulatory missions in the field. The scope and depth, the writing style and format of presentation vary greatly with the subject matter treated and the intended audience. As a result, relatively few materials are readily transferable. Most will need some transposition before they can realize their promise for application in different spheres of activity.

Information needs. In his roles respecting legislation -- drafting, amending, and voting on bills -- the elected official will need most frequently information in category 3. This is subject matter most directly related to the legislative process. How other jurisdictions have approached similar problems can be of considerable interest, along with the background (ecological, technological, economic, social, legal, and political) to these decisions.

Information from category 2 will be less frequently sought. It could serve to illuminate "problems" or validate the scientific basis for legislative or administrative action in the environmental sphere.

Only occasionally will the legislator seek raw data or highly scientific information embodied in category 1, and then his request will most likely be for the opinion of a respected authority on a particular public decision under consideration.

Other typical situations which might lead a legislator to undertake an environmental information search are:

--consideration of budget requests at appropriations time, especially when the environmental impact of particular capital works projects is concerned,

--responding to constituents' interests in a particular piece of legislation or project, especially when the matter in question involves controversy and the legislator must determine a position reflecting an understanding of the environmental considerations involved,

--preparing for speeches or public hearings,

--replying to constituents' requests for information,

--establishing the scope of work for staff or consultant activity relating to a particular environmental problem, or even weighing the decision of whether or not to commission such an undertaking.

Choosing the sources. Confronting a complex mass of information, much of it generated for other purposes and users, can be most perplexing to the state or local official who needs information that is quickly acquired, to the point, concise and up to date. Preferable sources from a standpoint of convenience are those which yield information most quickly with a minimum of effort on his part.

These busy officials are usually inundated with more reading matter than they have time to review. As issues arise which call for information, the legislator will characteristically ask his colleagues. Sometimes the knowledge thus gained, immediately and directly, is sufficient. Increasingly, however, the official will turn to an aide or reference personnel for help. First step would usually be to ask someone who may know the answers.

Unless these staff aides are themselves experts in the subject matter queried they, too, must look farther. Like the officials they support, they need information that is quickly found, concise and relevant. Their task is to find the sources most likely to provide what is needed with minimum time and cost.

Alternatives must be found, however, if the person-who-knows is busy, or if common courtesy dictates that his favors in providing information not be drawn upon too regularly or frequently. He may be inaccessible altogether. Then it is good to have other sources to draw upon. Sometimes the first choice sources are not known to the seeker of information. Background work, done by him directly or through a referral service, may be necessary to find out who they are.

There are times when the easiest approach to filling a need for information is not the fastest. Calling long distance to Washington and then having to wait until the next week for information is certainly less satisfactory than seeking answers to reference questions in documents that are available locally and can be produced within hours, or even more rapidly. Then too, there are complex information needs calling for drawing upon a number of sources. The more that can be accomplished directly and close to home, the better.

Outline of this guide. This guide describes the kinds of information sources that may be tapped, characteristics which make them more or less easy to use, more or less expensive, and more or less helpful in producing various types of information. It cites examples of the different kinds of sources as well.

The list is organized under three categories of sources, and arranged in general order of usefulness for the information needs of state and local legislators. They are:

1. Non-documentary sources,
2. Secondary literature, and
3. Primary literature.

Specific state and local sources -- the agencies with environmental responsibilities, university research centers or public interest groups -- are not always individually cited under each of the categories. They can be identified through sources which are cited, however, and should be recognized for the important contributions of information they can make.

With the assumption that the environmental questions of busy state or local elected officials are most often related to specific problems, the non-documentary sources of information are presented first. These are specialized sources most directly and quickly tapped.

There are officials, however, who desire a general introduction to the environmental policy issues. For them the list of books on page 109, under Primary Sources, offers suggestions for reading. Catalogs to audio-visual materials in the environmental field (such as the one published by the Environment Information Center of New York City) are also good sources for information which provides an overview of the field.

ENVIRONMENTAL INFORMATION

RESOURCES FOR

STATE AND LOCAL ELECTED OFFICIALS

general reference guide

NON-DOCUMENTARY SOURCES

8

1. Non-Documentary Sources

Asking one who knows

A best first approach may be to find someone who knows the subject matter well.

The knowledge of such an individual would be distilled from familiarity with the literature, and years of assimilating salient material from many sources. His information would be up to date as a result of his efforts to keep abreast of current developments in his colleagues' work and ongoing personal contributions. "People in the know" may be specialist staff members of organizations that disseminate knowledge about the field (e.g. journal publications, public interest groups, government agencies, reference or referral services, research institutions, professional associations, or associations that service and represent trade or industry groups). They may be consultants with expertise gained from work in the particular subject area, or personnel of specialized information centers and data services whose knowledge comes primarily from familiarity with the literature.

An obvious advantage of asking one who knows is the ability to pose questions directly, and get immediate response. If answers do not exactly fit the query, then questions can be rephrased or elaborated until a satisfactory answer is obtained.

There are limitations, however, in the scope of a single person's knowledge and in what even the expert can recall just at the moment he is asked. Then, too, the individual may have little time to talk or may be unavailable altogether when the need for his knowledge arises. If he needs to make a special search for the precise information requested, or if a written reply is called for, there may be charge for this service.

One disadvantage, commonly encountered, is a language barrier between a source of technical knowledge and the information seeker. There may be conceptual barriers as well, for example, when neither the expert nor the asker is aware of alternative solutions to a problem outside his particular field of expertise.

Some legislators may wish to get a feel for the scope of a problem or its content before asking questions of specialists. One useful publication is the Annual Report of the U.S. Council on Environmental Quality. Highlights of issues and developments in the preceding year are covered in each issue. The report is paperbound and available for relatively small cost from the Superintendent of Documents/Government Printing Office.

Encyclopedias, manuals, guidelines, handbooks and introductory textbooks covering the environmental field in general or its individual component subjects are also helpful in formulating questions.

With a clearer sense of the sorts of answers that are required the legislator or aide can proceed to identify the individuals able to give the answers. One way of doing this is through organizations with which such individuals are associated. Another is consulting sources from the secondary literature group such as directories and indexes to the literature.

Organizations

When the legislator's information needs are complex, involving many aspects of an environmental question, one of the best tacks is to find out who has coped with a similar problem before. What data and analyses were brought to bear on a study of the problem, what alternative solutions were evaluated, with what conclusions about their respective prospects for effectiveness, what policy choices were made and why, and what has been the experience ever since. Even if the precedents occurred under conditions different from the local ones, the analytical approach can be a useful point of departure. It may be transposed or adapted to apply in the current local situation.

Counterpart Affiliations

Organizations likely to have information about comparative experience in other states and communities would be those whose membership is composed of elected state and local officals. In their roles of representing their members' interests before public bodies, and serving their members through sponsorship of conferences, publication of newsletters and journals and special research and educational projects, they often become clearinghouses for information of many sorts.

Typically they maintain libraries with some reference capability. Specialist staff members in these organizations may be preferable to library staff as first contact; but library access to inter-library loan arrangements can be an important resource ultimately.

The National Conference of State Legislatures has offices at:

1405 Curtis Street
Denver, Colorado 80202
Tel: 303/623-6600

and

1150-17th St., N.W.
Washington, D.C. 20036
Tel: 202/785-8830

The National League of Cities/U.S. Conference of Mayors has headquarters at:

1919 Connecticut Ave., N.W.
Washington, D.C. 20036
Tel: 202/232-4789

The National Association of Counties is at:

1735 New York Avenue, N.W.
Washington, D.C. 20006
Tel: 202/785-9577

The National Association of Regional Councils is at:

1700 K Street, N.W.
Washington, D.C. 20036
Tel: 202/296-5253

The International City Management Association regularly polls its member cities and counties on their respective experiences and publishes results. They are located at:

1140 Connecticut Ave., N.W.
Washington, D.C. 20035
Tel: 202/293-2200

There is also a national non-profit organization serving its members' interests in small towns and rural communities, The Small Towns Institute:

Post Office Box 517
Ellensburg, Washington 98926

The American Society of Planning Officials (ASPO) has a national overview, receiving (and periodically soliciting) reports on environmental subjects (among others closely related) from state and local officials.

In its monthly publication ASPO includes subject-coded lists of the reports it receives and, periodically, the organization's Planning Advisory Service publishes a memo for its subscribers which summarizes what it has gleaned of the various approaches to a given problem.

ASPO
1313 E. 60th Street
Chicago, Illinois 60637
Tel: 312/947-2560

The membership or user-orientation of ASPO's service contrasts with other clearinghouses such as, for example, the Library of Congress' Monthly Checklist of State Publications. This includes accessions of state reports, which are listed by state, with an annual subject and corporate index. The listing service is free to state agencies which supply publications and $21.90/year otherwise. It is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Organizations of reference librarians and legislative research agencies, too, may provide a channel for sharing information about who has been particularly knowledgeable or helpful in their own environmental search experiences.

In general, sources such as these organizations which are familiar with the information users' needs and intended applications can yield more selective and pertinent information than others who specialize mainly in the subject matter. With the growing interest and importance of the environmental field, many of these representative organizations have added environmental experts to their staffs. Of course questions of great specificity in technical or scientific detail would better be put to subject area experts.

Publications Staff Specialists

There are among the specialized environmental media with national circulation, some which include coverage of state and local affairs. Staff reporters may often provide information or referrals as a result of knowledge they gain which is not necessarily published. Examples of publications (listed also in secondary literature section) are:

Environmental Law Reporter
Environment Reporter
Environmental Comment
National Journal.

Other periodicals with more specialized content orientation (e.g. air pollution or solid waste) are included in the secondary literature section as well.

Trade or Industry Associations

These are organizations formed to promote the economic interests of their membership, usually firms within a single industry. Activities might include lobbying, advertising, exhibiting, sponsorship of conferences and publication of a "house organ" to disseminate news deemed useful to the members. They provide information respecting their own fields on market trends, available products, technical feasibility or costs of pollution control enforcement.

The American Petroleum Institute is one example. Another is the Urban Land Institute, an organization whose nucleus is composed of land developers. In recent years the convergence of interests in promoting high quality development and adapting to more stringent regulation has bred a high level of research at the Urban Land Institute. Consequently, membership has broadened significantly, and with it, the circulation of its newsletter, journal, technical reports, and other publications.

Associations of this sort are listed in the Encyclopedia of Associations and the Congressional Quarterly's Washington Directory (because many are headquartered in the Capital). These two standard reference sources are available in almost every library.

Professional Associations and Learned Societies

Members of a profession or special academic discipline constitute these organizations. Reference and library services are usually restricted to membership. Often, though, staff members are willing to answer questions from outsiders; and publications of such groups may be found in libraries.

The National Wildlife Federation's Conservation Directory identifies a number of associations of this sort whose membership is engaged in environment-related work. Landscape architects, urban and regional planners, transportation engineers, economists, sociologists and others also have associations like this. Often there are national headquarters and regional or state and local chapters whose interests focus on their respective geographical areas. Others are listed in the Encyclopedia of Associations (Gale Research Co., Publisher), a reference tool available in most libraries.

The American Institute for Biological Sciences has appointed a Public Responsibilities Representative in each state to serve as a central contact point for those seeking information on biologically-related policy issues. A list of these individuals is appended. Inquiries for further information may be directed to Dr. Jack Grimes, Public Responsibilities, AIBS, 1401 Wilson Blvd., Arlington, Virginia. Tel: 703/527-6776 .

American Institute for Biological Sciences

State Public Responsibilities Representatives

(Source: Dr. Jack Grimes, Public Responsibilities AIBS,
1401 Wilson Blvd., Arlington, Va., Tel: 703/526-6776)

Alabama--Dr. Joseph C. O'Kelley
Dept. of Biology, U. of Alabama
University, Alabama 35486
205/348-5960

Alaska--Dr. George West, Acting
Director, Institute of Arctic Biology
U. of Alaska
Fairbanks, Alaska 99701
970/479-7658

Arizona--Dr. Newell Younggren
Dept. of Biological Sciences
U. of Arizona, Tucson, Arizona
602/884-2751

Arkansas--Dr. Claudia Bailey
Dept. of Zoology, U. of Arkansas
Fayetteville, Arkansas 72701
501/575-2000

California--State Coordinator
Dr. James Kendrick, Vice President
College of Agricultural Sciences
Room 317, U. of California
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Berkeley, California 94720
415/642-7171

Direct contacts for issues concerned with:

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U. of California
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Naval Supply Center
Oakland, California 94625
415/466-0112

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303/491-5371

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203/442-5391

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302/738-2284

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715/346-0123

Wyoming--Dr. Dennis Knight
Dept. of Botany
U. of Wyoming
Avon Nelson Building
Laramie, Wyoming 82071
307/766-1121

Universities

Individual professors may be quite helpful when approached for information by a personal friend or through official or professional channels. Many are available for consulting, but not always on a schedule to accommodate the legislator's need for information. They may inject their expertise into the public arena, unsolicited, as members of a professional community or as private citizens.

Several years ago a group of University of Michigan professors and scientists associated with local industries came together to form a sort of scientific-technical advisory panel on environmental affairs to the state legislature. In Massachusetts a group of prominent university science faculty called a meeting with state legislators where they expressed serious concern over prospective energy and economic problems and offered their views about necessary policy action. At the University of Alabama, Birmingham, Urban Studies Department, a group of professors have organized an advisory team to the Metropolitan Birmingham areawide planning agency. They are serving as intermediaries between the consultants working on the regional "208" wastewater management plan and the decision-makers, interpreting the highly technical inputs to the decisions these officials must make.

Beside the expertise of faculty, universities have other resources to offer. Students in intern jobs with government can assist in reference staff work.

The university libraries, too, may be fruitful sources of information. Those which are state land-grant institutions are usually Federal document Depository Libraries as well. The full or selected Government Printing Office product that is automatically shipped to these libraries contains much material relevant to environmental questions.

Products of the university press and law review organizations come under the category of primary literature in this guide and are discussed in a later chapter.

Referral Services

The foregoing examples of information sources have been presented as functioning in more than one way. They may publish newsletters or other current awareness bulletins or provide information developed through their own research. They may also offer information about where to go or whom to ask for additional material. This last role is more or less that of an informal, ad hoc referral service.

There are, in addition, more formal referral services that maintain files of large numbers of organizations or individuals with specialized knowledge in given subject areas.

The Library of Congress operates such a service called The National Referral Center in its Science and Technology Division. Anyone may use the service, which is free of charge, by writing or telephoning in a query. Responses are made by telephone or mail. They include names, addresses, telephone numbers and brief descriptions of appropriate information resources. When the list is long it may come in the form of a computer print-out. Response time averages five days.

Sometimes charges are involved in acquiring a listed resource for use (e.g. ordering documents from the National Technical Information Service). Sources requiring membership or other qualifications for access (e.g. participation in a government contract or affiliation with a recognized project) are noted on the list. Resource lists for subjects of recurring requests are published.

National Referral Center
Library of Congress
Science and Technology Division
10 First Street, S.E.
Washington, D.C. 20540
Tel: 202/426-5670

For state legislators as a special group of clients, the National Conference of State Legislatures sponsors a pilot referral service for scientific and technical information. Called MISTIC (Model Interstate Scientific and

Technical Information Clearinghouse), the project has been operational since 1974 with financial support of the National Science Foundation and three other Federal agencies.

MISTIC has functioned as a combined reference-referral service for state legislators' information needs -- particularly in scientific and technical fields. Their work has frequently had to do with environment, transportation and natural resource policy. An important feature of the MISTIC project is the direct channel it has established with five Federal agencies for securing answers to information requests. Each of the five agencies--the Department of Transportation, the National Aeronautics and Space Administration, the National Bureau of Standards, the Energy Research and Development Administration and the National Science Foundation--has designated a representative to receive MISTIC queries, pursue the answers and report back to the MISTIC staff. MISTIC, in turn, relays the information to its legislator-clients, either in the form of a report or a referral to a specified contact who can provide further help.

On issues of wider interest, MISTIC publishes the results of its searches and organizes meetings where legislators from more than one state can confer and be informed. The project staff also cull publications for items they judge to be of interest to their clients and then circulate the information where it can be applied.

This kind of service has the potential of becoming a two-way channel of communication since it can identify for the Federal agencies areas where their efforts can better serve state information needs as well as bringing Federal information back to the states. The NCSL MISTIC contact is:

Office of Science and Technology
Joanna Mack, MISTIC Coordinator
1405 Curtis Street, Suite 2300
Denver, Colorado 80202
Tel: 303/623-6600

A similar service is offered state and local governments by the Urban Technology Clearinghouse at Public Technology, Inc. The aim here, too, is to apply advanced technologies to the needs of state and local governments; as well as to assume some of the risk associated with research and development on behalf of public jurisdictions that have no capacity for such investigations individually. The contact is:

Urban Technology Clearinghouse
Public Technology, Inc.
1140 Connecticut Ave., N.W.
Washington, D.C. 20036
Tel: 202/452-7700

Reference Services

A reference service will attempt to answer specific questions in contrast with a referral center which merely identifies names of contacts which must then, in turn, be called.

The Reference Section of the Library of Congress' Science and Technology Division provides such a service free of charge and available to anyone. Their reference search relies on six data bases: the National Referral Center files; the Citation File (containing 1974-76 periodical articles selected as having interest for Congress); the Library's computerized list of books acquired since 1968; materials from the 93rd and 94th Congresses; and the Congressional Record.

Response for simple reference questions generally runs 24-48 hours but may take longer. The content of the answer may be limited to subject headings to guide the asker's subsequent search of abstracts. On subjects frequently searched (energy topics are heavily emphasized now) they publish bibliographies called "Tracer Bullets." An example is provided.

Some units in the library network of the Environmental Protection Agency also provide reference service without charge to local university communities, industry and citizens' organizations. These sources are noted, along with library locations and descriptions of their respective collections in the Guide to EPA Libraries (a copy is provided). These libraries are established and maintained to support EPA's own staff responsibilities. In most cases outsiders are not encouraged to seek reference services or interlibrary loans from EPA staff. Outsiders are permitted to do their own reference work using materials held in EPA's collections, and EPA has prepared a number of aids to facilitate searches through the Agency library holdings. These are described in the section on secondary literature.

Environmental reference work can be accomplished at libraries other than EPA's. A directory of State and Local Environmental Libraries has been prepared by the Environmental Protection Agency and the National Oceanic and Atmospheric Administration jointly (a copy is appended). The directory sponsors hope that awareness of additional environmental collections and convenient local access to the reference materials contained in them will facilitate the information user's search. Linking these state and local collections with regional environmental reference centers (EPA's regional libraries) can expand the resources available to the state and local units. The same links can serve to expand the regional centers' range, particularly by access to organized collections of state and locally generated data, research reports and other documents.

The National Agricultural Library offers reference services based on its holdings. Special collections in the fields of soils, fertilizers, pest control and pesticides as well as others are particularly relevant for environmental policy-makers. On request by letter, telephone, teletype or personal visit, the NAL will supply bibliographies, copies of materials (with a service charge) and other information.

U.S. Dept. of Agriculture
National Agricultural Library
Reference Division
Beltsville, Maryland 20705

Attn: Mr. Charles Bebee
Tel: 301/344-3755

Federal Government Agencies with Environmental Program Responsibilities*

Government agencies are frequently-cited sources of information in the environmental directories. They have material for public distribution on the programs which are their responsibility. Many engage in environmental inventory or monitoring, research, standard-setting, technical assistance or educational efforts. Their products are published and available to the public at relatively little or no cost. There may be very knowledgeable staff members who are potentially good sources of information. It may not be easy to find them, though.

Even with a scorecard it can be frustrating and time-consuming to identify the players among the myriad governmental units involved in the environmental field. CEQ publishes a list of Federal agencies with statutory mission or special expertise to comment on environmental impact, appended to the Guidelines on Preparation of Environmental Statements. Twelve pages of small type present a formidable challenge to a hurried seeker of information. Some lists provide names of agency subunits, staff and telephone numbers. Still, these data are subject to change frequently in the Federal government and the lists are quickly outdated. Unless the inquirer knows precisely the information he wishes and has a direct referral to the office which has it, he might do better to initiate his government agency contact through an intermediary clearinghouse, a referral service, or a search for citations in the secondary literature.

If the state or local legislator is himself searching out who knows what in the environmental protection field, he might begin with EPA's:

Office of Regional and Intergovernmental Operations
Washington, D.C. 20460
Tel: 202/755-0444

for a national overview or referral to a Federal government source. For information about his own or neighboring states he might try the nearest regional office of EPA. The Regional Administrator is responsible for carrying out EPA's national program mission in his region. He and his staff are designated as the principal contacts between the Agency and state

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*State and local environmental program agencies and administrators are listed in the Conservation Directory cited on p. 15.

CEQ's List of Environmental Impact Categories and Federal Agencies and Federal State Agencies with Jurisdiction by Law or Special Expertise to Comment Thereon

APPENDIX II—AREAS OF ENVIRONMENTAL IMPACT AND FEDERAL AGENCIES AND FEDERAL STATE AGENCIES[1] WITH JURISDICTION BY LAW OR SPECIAL EXPERTISE TO COMMENT THEREON[2]

AIR

Air Quality

- Department of Agriculture—
  - Forest Service (effects on vegetation)
- Atomic Energy Commission (radioactive substances)
- Department of Health, Education, and Welfare
- Environmental Protection Agency
- Department of the Interior—
  - Bureau of Mines (fossil and gaseous fuel combustion)
  - Bureau of Sport Fisheries and Wildlife (effect on wildlife)
  - Bureau of Outdoor Recreation (effects on recreation)
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
- National Aeronautics and Space Administration (remote sensing, aircraft emissions)
- Department of Transportation—
  - Assistant Secretary for Systems Development and Technology (auto emissions)
  - Coast Guard (vessel emissions)
  - Federal Aviation Administration (aircraft emissions)

Weather Modification

- Department of Agriculture—
  - Forest Service
- Department of Commerce—
  - National Oceanic and Atmospheric Administration
- Department of Defense—
  - Department of the Air Force
- Department of the Interior
  - Bureau of Reclamation

WATER RESOURCES COUNCIL

WATER

Water Quality

- Department of Agriculture—
  - Soil Conservation Service
  - Forest Service
- Atomic Energy Commission (radioactive substances)
- Department of the Interior—
  - Bureau of Reclamation
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Sports Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - Geological Survey
  - Office of Saline Water
- Environmental Protection Agency
- Department of Health, Education, and Welfare
- Department of Defense—
  - Army Corps of Engineers
  - Department of the Navy (ship pollution control)
- National Aeronautics and Space Administration (remote sensing)
- Department of Transportation—
  - Coast Guard (oil spills, ship sanitation)
- Department of Commerce—
  - National Oceanic and Atmospheric Administration
- Water Resources Council
- River Basin Commissions (as geographically appropriate)

Marine Pollution, Commercial Fishery Conservation, and Shellfish Sanitation

- Department of Commerce—
  - National Oceanic and Atmospheric Administration
- Department of Defense—
  - Army Corps of Engineers
  - Office of the Oceanographer of the Navy
- Department of Health, Education, and Welfare
- Department of the Interior—
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - Bureau of Land Management (outer continental shelf)
  - Geological Survey (outer continental shelf)
- Department of Transportation—
  - Coast Guard
- Environmental Protection Agency
- National Aeronautics and Space Administration (remote sensing)
- Water Resources Council
- River Basin Commissions (as geographically appropriate)

Waterway Regulation and Stream Modification

- Department of Agriculture—
  - Soil Conservation Service
- Department of Defense—
  - Army Corps of Engineers
- Department of the Interior—
  - Bureau of Reclamation
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - Geological Survey
- Department of Transportation—
  - Coast Guard
- Environmental Protection Agency
- National Aeronautics and Space Administration (remote sensing)
- Water Resources Council
- River Basin Commissions (as geographically appropriate)

FISH AND WILDLIFE

- Department of Agriculture—
  - Forest Service
  - Soil Conservation Service
- Department of Commerce—
  - National Oceanic and Atmospheric Administration (marine species)
- Department of the Interior—
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Land Management
  - Bureau of Outdoor Recreation
- Environmental Protection Agency

SOLID WASTE

- Atomic Energy Commission (radioactive waste)
- Department of Defense—
  - Army Corps of Engineers
- Department of Health, Education, and Welfare
- Department of the Interior—
  - Bureau of Mines (mineral waste, mine acid waste, municipal solid waste, recycling)
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
  - Geological Survey (geologic and hydrologic effects)
  - Office of Saline Water (demineralization)
- Department of Transportation—
  - Coast Guard (ship sanitation)
- Environmental Protection Agency
- River Basin Commissions (as geographically appropriate)
- Water Resources Council

NOISE

- Department of Commerce—
  - National Bureau of Standards
- Department of Health, Education, and Welfare
- Department of Housing and Urban Development (land use and building materials aspects)
- Department of Labor—
  - Occupational Safety and Health Administration
- Department of Transportation—
  - Assistant Secretary for Systems Development and Technology
  - Federal Aviation Administration, Office of Noise Abatement
- Environmental Protection Agency
- National Aeronautics and Space Administration

RADIATION

- Atomic Energy Commission
- Department of Commerce—
  - National Bureau of Standards
- Department of Health, Education, and Welfare
- Department of the Interior—
  - Bureau of Mines (uranium mines)
  - Mining Enforcement and Safety Administration (uranium mines)
- Environmental Protection Agency

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[1] River Basin Commissions (Delaware, Great Lakes, Missouri, New England, Ohio, Pacific Northwest, Souris-Red-Rainy, Susquehanna, Upper Mississippi) and similar Federal-State agencies should be consulted on actions affecting the environment of their specific geographic jurisdictions.

[2] In all cases where a proposed action will have significant international environmental effects, the Department of State should be consulted, and should be sent a copy of any draft and final impact statement which covers such action.

Source: Wellborn, Suzanne M., Environmental Certification for Community Development: a Manual of Procedures. National Association of Housing and Redevelopment Officials, 2600 Virginia Ave., N.W., Wash., D.C. 20037, 1975, pp. 74-85.

HAZARDOUS SUBSTANCES

Toxic Materials

- Atomic Energy Commission (radioactive substances)
- Department of Agriculture—
  - Agricultural Research Service
  - Consumer and Marketing Service
- Department of Commerce—
  - National Oceanic and Atmospheric Administration
- Department of Defense
- Department of Health, Education, and Welfare
- Environmental Protection Agency

Food Additives and Contamination of Foodstuffs

- Department of Agriculture—
  - Consumer and Marketing Service (meat and poultry products)
- Department of Health, Education, and Welfare
- Environmental Protection Agency

Pesticides

- Department of Agriculture—
  - Agricultural Research Service (biological controls, food and fiber production)
  - Consumer and Marketing Service
  - Forest Service
- Department of Commerce—
  - National Oceanic and Atmospheric Administration
- Department of Health, Education, and Welfare
- Department of the Interior—
  - Bureau of Sport Fisheries and Wildlife (fish and wildlife effects)
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Reclamation (irrigated lands)
- Environmental Protection Agency

Transportation and Handling of Hazardous Materials

- Atomic Energy Commission (radioactive substances)
- Department of Commerce—
  - Maritime Administration
  - National Oceanic and Atmospheric Administration (effects on marine life and the coastal zone)
- Department of Defense—
  - Armed Services Explosive Safety Board
  - Army Corps of Engineers (navigable waterways)
- Department of Transportation—
  - Federal Highway Administration, Bureau of Motor Carrier Safety
  - Coast Guard
  - Federal Railroad Administration
  - Federal Aviation Administration
  - Assistant Secretary for Systems Development and Technology
  - Office of Hazardous Materials
  - Office of Pipeline Safety
- Environmental Protection Agency

ENERGY SUPPLY AND NATURAL RESOURCES DEVELOPMENT

Electric Energy Development, Generation, and Transmission, and Use

- Atomic Energy Commission (nuclear)
- Department of Agriculture—
  - Rural Electrification Administration (rural areas)
- Department of Defense—
  - Army Corps of Engineers (hydro)
- Department of Health, Education, and Welfare (radiation effects)
- Department of Housing and Urban Development (urban areas)
- Department of the Interior—
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Land Management (public lands)
  - Bureau of Reclamation
  - Power Marketing Administrations
  - Geological Survey
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - National Park Service
- Environmental Protection Agency
- Federal Power Commission (hydro, transmission, and supply)
- River Basin Commissions (as geographically appropriate)
- Tennessee Valley Authority
- Water Resources Council

Petroleum Development, Extraction, Refining, Transport, and Use

- Department of the Interior—
  - Office of Oil and Gas
  - Bureau of Mines
  - Geological Survey
  - Bureau of Land Management (public lands and outer continental shelf)
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Sport Fisheries and Wildlife (effects on fish and wildlife)
  - Bureau of Outdoor Recreation
  - National Park Service
- Department of Transportation (Transport and Pipeline Safety)
- Environmental Protection Agency
- Interstate Commerce Commission

Natural Gas Development, Production, Transmission, and Use

- Department of Housing and Urban Development (urban areas)
- Department of the Interior—
  - Office of Oil and Gas
  - Geological Survey
  - Bureau of Mines
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - National Park Service
- Department of Transportation (transport and safety)
- Environmental Protection Agency
- Federal Power Commission (production, transmission, and supply)
- Interstate Commerce Commission

Coal and Minerals Development, Mining, Conversion, Processing, Transport, and Use

- Appalachian Regional Commission
- Department of Agriculture—
  - Forest Service
- Department of Commerce
- Department of the Interior—
  - Office of Coal Research
  - Mining Enforcement and Safety Administration
  - Bureau of Mines
  - Geological Survey
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Land Management (public lands)
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - National Park Service
- Department of Labor—
  - Occupational Safety and Health Administration
- Department of Transportation
- Environmental Protection Agency
- Interstate Commerce Commission
- Tennessee Valley Authority

Renewable Resource Development, Production, Management, Harvest, Transport, and Use

- Department of Agriculture—
  - Forest Service
  - Soil Conservation Service
- Department of Commerce
- Department of Housing and Urban Development (building materials)
- Department of the Interior—
  - Geological Survey
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Outdoor Recreation
  - National Park Service
- Department of Transportation
- Environmental Protection Agency
- Interstate Commerce Commission (freight rates)

Energy and Natural Resources Conservation

- Department of Agriculture—
  - Forest Service
  - Soil Conservation Service
- Department of Commerce—
  - National Bureau of Standards (energy efficiency)
- Department of Housing and Urban Development—
  - Federal Housing Administration (housing standards)
- Department of the Interior—
  - Office of Energy Conservation
  - Bureau of Mines
  - Bureau of Reclamation
  - Geological Survey
  - Power Marketing Administration
- Department of Transportation
- Environmental Protection Agency
- Federal Power Commission
- General Services Administration (design and operation of buildings)
- Tennessee Valley Authority

LAND USE AND MANAGEMENT

Land Use Changes, Planning and Regulation of Land Development

- Department of Agriculture—
  - Forest Service (forest lands)
  - Agricultural Research Service (agricultural lands)
- Department of Housing and Urban Development
- Department of the Interior—
  - Office of Land Use and Water Planning
  - Bureau of Land Management (public la
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Sport Fisheries and Wildlife (wildlife refuges)
  - Bureau of Outdoor Recreation (recreation lands)
  - National Park Service (NPS units)
- Department of Transportation
- Environmental Protection Agency (pollution effects)
- National Aeronautics and Space Administration (remote sensing)
- River Basins Commissions (as geographically appropriate).

Public Land Management

- Department of Agriculture—
  - Forest Service (forests)
- Department of Defense
- Department of the Interior—
  - Bureau of Land Management
  - Bureau of Indian Affairs (Indian lands)
  - Bureau of Sport Fisheries and Wildlife (wildlife refuges)
  - Bureau of Outdoor Recreation (recreation lands)
  - National Park Service (NPS units)
- Federal Power Commission (project lands)
- General Services Administration
- National Aeronautics and Space Administration (remote sensing)
- Tennessee Valley Authority (project lands)

PROTECTION OF ENVIRONMENTALLY CRITICAL AREAS—FLOODPLAINS, WETLANDS, BEACHES AND DUNES, UNSTABLE SOILS, STEEP SLOPES, AQUIFER RECHARGE AREAS, ETC.

- Department of Agriculture—
  - Agricultural Stabilization and Conservation Service
  - Soil Conservation Service
  - Forest Service
- Department of Commerce—
  - National Oceanic and Atmospheric Administration (coastal areas)
- Department of Defense—
  - Army Corps of Engineers
- Department of Housing and Urban Development (urban and floodplain areas)
- Department of the Interior—
  - Office of Land Use and Water Planning
  - Bureau of Outdoor Recreation
  - Bureau of Reclamation
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Land Management
  - Geological Survey
- Environmental Protection Agency (pollution effects)
- National Aeronautics and Space Administration (remote sensing)
- River Basins Commissions (as geographically appropriate)
- Water Resources Council

LAND USE IN COASTAL AREAS

- Department of Agriculture—
  - Forest Service
  - Soil Conservation Service (soil stability, hydrology)
- Department of Commerce—
  - National Oceanic and Atmospheric Administration (impact on marine life and coastal zone management)
- Department of Defense—
  - Army Corps of Engineers (beaches, dredge and fill permits, Refuse Act permits)
- Department of Housing and Urban Development (urban areas)
- Department of the Interior—
  - Office of Land Use and Water Planning
  - Bureau of Sport Fisheries and Wildlife
  - National Park Service
  - Geological Survey
  - Bureau of Outdoor Recreation
  - Bureau of Land Management (public lands)
- Department of Transportation—
  - Coast Guard (bridges, navigation)
- Environmental Protection Agency (pollution effects)
- National Aeronautics and Space Administration (remote sensing)

REDEVELOPMENT AND CONSTRUCTION IN BUILT-UP AREAS

- Department of Commerce—
  - Economic Development Administration (designated areas)
- Department of Housing and Urban Development
- Department of the Interior—
  - Office of Land Use and Water Planning
- Department of Transportation
- Environmental Protection Agency
- General Services Administration
- Office of Economic Opportunity

DENSITY AND CONGESTION MITIGATION

- Department of Health, Education, and Welfare
- Department of Housing and Urban Development
- Department of the Interior—
  - Office of Land Use and Water Planning
  - Bureau of Outdoor Recreation
- Department of Transportation
- Environmental Protection Agency

NEIGHBORHOOD CHARACTER AND CONTINUITY

- Department of Health, Education, and Welfare
- Department of Housing and Urban Development
- National Endowment for the Arts
- Office of Economic Opportunity

IMPACTS ON LOW-INCOME POPULATIONS

- Department of Commerce—
  - Economic Development Administration (designated areas)
- Department of Health, Education, and Welfare
- Department of Housing and Urban Development
- Office of Economic Opportunity

HISTORIC, ARCHITECTURAL, AND ARCHEOLOGICAL PRESERVATION

- Advisory Council on Historic Preservation
- Department of Housing and Urban Development
- Department of the Interior—
  - National Park Service
  - Bureau of Land Management (public lands)
  - Bureau of Indian Affairs (Indian lands)
- General Services Administration
- National Endowment for the Arts

SOIL AND PLANT CONSERVATION AND HYDROLOGY

- Department of Agriculture—
  - Soil Conservation Service
  - Agricultural Service
  - Forest Service
- Department of Commerce—
  - National Oceanic and Atmospheric Administration
- Department of Defense—
  - Army Corps of Engineers (dredging, aquatic plants)
- Department of Health, Education, and Welfare
- Department of the Interior—
  - Bureau of Land Management
  - Bureau of Sport Fisheries and Wildlife
  - Geological Survey
  - Bureau of Reclamation
- Environmental Protection Agency
- National Aeronautics and Space Administration (remote sensing)
- River Basin Commissions (as geographically appropriate)
- Water Resources Council

OUTDOOR RECREATION

- Department of Agriculture—
  - Forest Service
  - Soil Conservation Service
- Department of Defense—
  - Army Corps of Engineers
- Department of Housing and Urban Development (urban areas)
- Department of the Interior—
  - Bureau of Land Management
  - National Park Service
  - Bureau of Outdoor Recreation
  - Bureau of Sport Fisheries and Wildlife
  - Bureau of Indian Affairs
- Environmental Protection Agency
- National Aeronautics and Space Administration (remote sensing)
- River Basin Commissions (as geographically appropriate)
- Water Resources Council

APPENDIX III—OFFICES WITHIN FEDERAL AGENCIES AND FEDERAL-STATE AGENCIES FOR INFORMATION REGARDING THE AGENCIES' NEPA ACTIVITIES AND FOR RECEIVING OTHER AGENCIES' IMPACT STATEMENTS FOR WHICH COMMENTS ARE REQUESTED

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Office of Architectural and Environmental Preservation, Advisory Council on Historic Preservation, Suite 430, 1522 K Street, N.W., Washington, D.C. 20005 254-3974

DEPARTMENT OF AGRICULTURE[1]

Office of the Secretary, Attn: Coordinator Environmental Quality Activities, U.S. Department of Agriculture, Washington, D.C. 20250 447-3965

APPALACHIAN REGIONAL COMMISSION

Office of the Alternate Federal Co-Chairman, Appalachian Regional Commission, 1666 Connecticut Avenue, N.W., Washington, D.C. 20235 967-4103

DEPARTMENT OF THE ARMY (CORPS OF ENGINEERS)

Executive Director of Civil Works, Office of the Chief of Engineers, U.S. Army Corps of Engineers, Washington, D.C. 20314 693-7168

ATOMIC ENERGY COMMISSION

For nonregulatory matters: Office of Assistant General Manager for Biomedical and Environmental Research and Safety Programs, Atomic Energy Commission, Washington, D.C. 20545 973-3208

For regulatory matters: Office of the Assistant Director for Environmental Projects, Atomic Energy Commission, Washington, D.C. 20545 973-7531

DEPARTMENT OF COMMERCE

Office of the Deputy Assistant Secretary for Environmental Affairs, U.S. Department of Commerce, Washington, D.C. 20230 967-4335

DEPARTMENT OF DEFENSE

Office of the Assistant Secretary for Defense (Health and Environment), U.S. Department of Defense, Room 3E172, The Pentagon, Washington, D.C. 20301 697-2111

DELAWARE RIVER BASIN COMMISSION

Office of the Secretary, Delaware River Basin Commission, Post Office Box 360, Trenton, N.J. 08603 (609) 883-9500

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[1] Requests for comments or information from individual units of the Department of Agriculture, e.g., Soil Conservation Service, Forest Service, etc. should be sent to the Office of the Secretary, Department of Agriculture, at the address given above.

ENVIRONMENTAL PROTECTION AGENCY [4]

Director, Office of Federal Activities, Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460 755-0777

Regional Administrator, I, U.S. Environmental Protection Agency Room 2303, John F. Kennedy Federal Bldg., Boston, Mass. 02203, (617) 223-7210	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Regional Administrator, II, U.S. Environmental Protection Agency Room 908, 26 Federal Plaza New York, New York 10007 (212) 264-2525	New Jersey, New York, Puerto Rico, Virgin Islands
Regional Administrator, III, U.S. Environmental Protection Agency Curtis Bldg., 6th & Walnut Sts. Philadelphia, Pa. 19106 (215) 597-9801	Delaware, Maryland, Pennsylvania, Virginia, West Virginia, District of Columbia
Regional Administrator, IV, U.S. Environmental Protection Agency 1421 Peachtree Street N.E., Atlanta, Ga. 30309 (404) 526-5727	Alabama, Florida, Georgia, Kentucky Mississippi, North Carolina, South Carolina, Tennessee
Regional Administrator V, U.S. Environmental Protection Agency 1 N. Wacker Drive Chicago, Illinois 60606 (312) 353-5250	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin
Regional Administrator VI, U.S. Environmental Protection Agency 1600 Patterson Street Suite 1100 Dallas, Texas 75201 (214) 749-1962	Arkansas, Louisiana, New Mexico, Texas, Oklahoma
Regional Administrator VII, U.S. Environmental Protection Agency 1735 Baltimore Avenue Kansas City, Missouri 64108 (816) 374-5493	Iowa, Kansas, Missouri, Nebraska
Regional Administrator VIII, U.S. Environmental Protection Agency Suite 900, Lincoln Tower 1860 Lincoln Street Denver, Colorado 80203 (303) 837-3895	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Regional Administrator IX, U.S. Environmental Protection Agency 100 California Street San Francisco, California 94111 (415) 556-2320	Arizona, California, Hawaii, Nevada, American Samoa, Guam, Trust Territories of Pacific Islands, Wake Island
Regional Administrator X, U.S. Environmental Protection Agency 1200 Sixth Avenue Seattle, Washington 98101 (206) 442-1220	Alaska, Idaho, Oregon, Washington

FEDERAL POWER COMMISSION

Commission's Advisor on Environmental Quality, Federal Power Commission, 825 N. Capitol Street, N.E., Washington, D.C. 20426 386-6084

GENERAL SERVICES ADMINISTRATION

Office of Environmental Affairs, Office of the Deputy Administrator for Special Projects, General Services Administration, Washington, D.C. 20405 343-4161

GREAT LAKES BASIN COMMISSION

Office of the Chairman, Great Lakes Basin Commission, 3475 Plymouth Road, P.O. Box 999, Ann Arbor, Michigan 48105 (313) 769-7431

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE [5]

Office of Environmental Affairs, Office of the Assistant Secretary for Administration and Management, Department of Health, Education and Welfare, Washington, D.C. 20202 963-4456

Region I:
Regional Environmental Officer
U.S. Department of Health, Education and Welfare
Room 2007B
John F. Kennedy Center
Boston, Massachusetts 02203 (617) 223-6837

Region II:
Regional Environmental Officer
U.S. Department of Health, Education and Welfare
Federal Building
26 Federal Plaza
New York, New York 10007 (212) 264-1308

Region III:
Regional Environmental Officer
U.S. Department of Health, Education and Welfare
P.O. Box 13716
Philadelphia, Pennsylvania 19101 (215) 597-6498

Region IV:
Regional Environmental Officer
U.S. Department of Health, Education and Welfare
Room 404
50 Seventh Street, N.E.
Atlanta, Georgia 30323 (404) 526-5817

Region V:
Regional Environmental Officer
U.S. Department of Health, Education and Welfare
Room 712, New Post Office Building
433 West Van Buren Street
Chicago, Illinois 60607 (312) 353-1644

Region VI:
Regional Environmental Officer
U.S. Department of Health, Education and Welfare
1114 Commerce Street
Dallas, Texas 75202 (214) 749-2236

Region VII:
Regional Environmental Officer
U.S. Department of Health, Education and Welfare
601 East 12th Street
Kansas City, Missouri 64106 (816) 374-3584

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT [6]

Director, Office of Community and Environmental Standards, Department of Housing and Urban Development, Room 7206, Washington, D.C. 20410
755-5980

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[4] Contact the Office of Federal Activities for environmental statements concerning legislation, regulations, national program proposals or other major policy issues.

For all other EPA consultation, contact the Regional Administrator in whose area the proposed action (e.g., highway or water resource construction projects) will take place. The Regional Administrators will coordinate the EPA review. Addresses of the Regional Administrators, and the areas covered by their regions are as follows:

[5] Contact the Office of Environmental Affairs for information on HEW's environmental statements concerning legislation, regulations, national program proposals or other major policy issues, and for all requests for HEW comment on impact statements of other agencies.

For information with respect to HEW actions occurring within the jurisdiction of the Departments' Regional Directors, contact the appropriate Regional Environmental Officer:

Region VIII:
  Regional Environmental Officer
  U.S. Department of Health, Education and Welfare
  9017 Federal Building
  19th and Stout Streets
  Denver, Colorado 80202 (303) 837-4178
Region IX:
  Regional Environmental Officer
  U.S. Department of Health, Education and Welfare
  50 Fulton Street
  San Francisco, California 94102 (415) 556-1970
Region X:
  Regional Environmental Officer
  U.S. Department of Health, Education and Welfare
  Arcade Plaza Building
  1321 Second Street
  Seattle, Washington 98101 (206) 442-0490

[4] Contact the Director with regard to environmental impacts of legislation, policy statements, program regulations and procedures, and precedent-making project decisions. For all other HUD consultation, contact the HUD Regional Administrator in whose jurisdiction the project lies, as follows:

Regional Administrator I,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  Room 405, John F. Kennedy Federal Building
  Boston, Mass. 02203 (617) 223-4066
Regional Administrator II,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  26 Federal Plaza
  New York, New York 10007 (212) 264-8068
Regional Administrator III,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  Curtis Building, Sixth and Walnut Street
  Philadelphia, Pennsylvania 19106 (215) 597-2560
Regional Administrator IV,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  Peachtree-Seventh Building
  Atlanta, Georgia 30323 (404) 526-5585
Regional Administrator V,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  360 North Michigan Avenue
  Chicago, Illinois 60601 (312) 353-5680

DEPARTMENT OF THE INTERIOR[5]

Director, Office of Environmental Project Review, Department of the Interior, Interior Building, Washington, D.C. 20240 343-3891

INTERSTATE COMMERCE COMMISSION

Office of Proceedings, Interstate Commerce, Commission, Washington, D.C. 20423 343-6167

DEPARTMENT OF LABOR

Assistant Secretary for Occupational Safety and Health, Department of Labor, Washington, D.C. 20210 961-3405

MISSOURI RIVER BASINS COMMISSION

Office of the Chairman, Missouri River Basins Commission, 10050 Regency Circle, Omaha, Nebraska 68114
(402) 397-5714

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Office of the Comptroller, National Aeronautics and Space Administration, Washington, D.C. 20546
755-8440

NATIONAL CAPITAL PLANNING COMMISSION

Office of Environmental Affairs, Office of the Executive Director, National Capital Planning Commission, Washington, D.C. 20576 382-7200

NATIONAL ENDOWMENT FOR THE ARTS

Office of Architecture and Environmental Arts Program, National Endowment for the Arts, Washington, D.C. 20506
382-5765

NEW ENGLAND RIVER BASINS COMMISSION

Office of the Chairman, New England River Basins Commission, 55 Court Street, Boston, Mass. 02108
(617) 223-6244

Regional Administrator VI,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  Federal Office Building, 819 Taylor Street
  Fort Worth, Texas 76102 (817) 334-2867
Regional Administrator VII,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  911 Walnut Street
  Kansas City, Missouri 64106 (816) 374-2661
Regional Administrator VIII,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  Samsonite Building, 1051 South Broadway
  Denver, Colorado 80209 (303) 837-4061
Regional Administrator IX,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  450 Golden Gate Avenue, Post Office Box 36003
  San Francisco, California 94102 (415) 556-4752
Regional Administrator X,
  Environmental Clearance Officer
  U.S. Department of Housing and Urban Development
  Room 226, Arcade Plaza Building
  Seattle, Washington 98101 (206) 583-5415

[5] Requests for comments or information from individual units of the Department of the Interior should be sent to the Office of Environmental Project Review at the address given above.

OFFICE OF ECONOMIC OPPORTUNITY

Office of the Director, Office of Economic Opportunity, 1200 19th Street, N.W., Washington, D.C. 20506
254-6000

OHIO RIVER BASIN COMMISSION

Office of the Chairman, Ohio River Basin Commission, 36 East 4th Street, Suite 208-20, Cincinnati, Ohio 45202
(513) 684-3831

PACIFIC NORTHWEST RIVER BASINS COMMISSION

Office of the Chairman, Pacific Northwest River Basins Commission, 1 Columbia River, Vancouver, Washington 98660
(206) 695-3606

SOURIS-RED-RAINY RIVER BASINS COMMISSION

Office of the Chairman, Souris-Red-Rainy River Basins Commission, Suite 6, Professional Building, Holiday Mall, Moorhead, Minnesota 56560
(701) 237-5227

DEPARTMENT OF STATE

Office of the Special Assistant to the Secretary for Environmental Affairs, Department of State, Washington, D.C. 20520
632-7964

SUSQUEHANNA RIVER BASIN COMMISSION

Office of the Executive Director, Susquehanna River Basin Commission, 5012 Lenker Street, Mechanicsburg, Pa. 17055
(717) 737-0501

TENNESSEE VALLEY AUTHORITY

Office of the Director of Environmental Research and Development, Tennessee Valley Authority, 720 Edney Building, Chattanooga, Tennessee 37401 (615) 755-2002

DEPARTMENT OF TRANSPORTATION[6]

Director, Office of Environmental Quality, Office of the Assistant Secretary for Environment, Safety, and Consumer Affairs, Department of Transportation, Washington, D.C. 20590 426-4357

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[6] Contact the Office of Environmental Quality, Department of Transportation, for information on DOT's environmental statements concerning legislation, regulations, national program proposals, or other major policy issues.

For information regarding the Department of Transportation's other environmental statements, contact the national office for the appropriate administration:

U.S. Coast Guard

Office of Marine Environment and Systems, U.S. Coast Guard, 400 7th Street, S.W., Washington, D.C. 20590, 426-2007

Federal Aviation Administration

Office of Environmental Quality, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D.C. 20591, 426-8406

Federal Highway Administration

Office of Environmental Policy, Federal Highway Administration, 400 7th Street, S.W., Washington, D.C. 20590, 426-0351

Federal Railroad Administration

Office of Policy and Plans, Federal Railroad Administration, 400 7th Street, S.W., Washington, D.C. 20590, 426-1567

Urban Mass Transportation Administration

Office of Program Operations, Urban Mass Transportation Administration, 400 7th Street, S.W., Washington, D.C. 20590, 426-4020

For other administration's not listed above, contact the Office of Environmental Quality, Department of Transportation, at the address given above.

For comments on other agencies' environmental statements, contact the appropriate administration's regional office. If more than one administration within the Department of Transportation is to be requested to comment, contact the Secretarial Representative in the appropriate Regional Office for coordination of the Department's comments:

SECRETARIAL REPRESENTATIVE

Region I Secretarial Representative, U.S. Department of Transportation, Transportation Systems Center, 55 Broadway, Cambridge, Massachusetts 02142 (617) 494-2709

Region II Secretarial Representative, U.S. Department of Transportation, 26 Federal Plaza, Room 1811, New York, New York 10007 (212) 264-2672

Region III Secretarial Representative, U.S. Department of Transportation, Mall Building, Suite 1214, 325 Chestnut Street, Philadelphia, Pennsylvania 19106 (215) 597-0407

Region IV Secretarial Representative, U.S. Department of Transportation, Suite 515, 1720 Peachtree Rd., N.W. Atlanta, Georgia 30309 (404) 526-3738

Region V Secretarial Representative, U.S. Department of Transportation, 17th Floor, 300 S. Wacker Drive, Chicago, Illinois 60606 (312) 353-4000

Region V Secretarial Representative, U.S. Department of Transportation, 9-C-18 Federal Center, 1100 Commerce Street, Dallas, Texas 75202 (214) 749-1851

Region VII Secretarial Representative, U.S. Department of Transportation, 601 E. 12th Street, Room 634, Kansas City, Missouri 64106 (816) 374-2761

Region VIII Secretarial Representative, U.S. Department of Transportation, Prudential Plaza, Suite 1822, 1050 17th Street, Denver, Colorado 80225 (303) 837-3242

Region IX Secretarial Representative, U.S. Department of Transportation, 450 Golden Gate Avenue, Box 36133, San Francisco, California 94102 (415) 556-5961

Region X Secretarial Representative, U.S. Department of Transportation, 1321 Second Avenue, Room 507, Seattle, Washington 98101 (206) 442-0590

FEDERAL AVIATION ADMINISTRATION

New England Region, Office of the Regional Director, Federal Aviation Administration, 154 Middlesex Street, Burlington, Massachusetts 01803 (617) 272-2350

Eastern Region, Office of the Regional Director, Federal Aviation Administration, Federal Building, JFK International Airport, Jamaica, New York 11430 (212) 995-3333

Southern Region, Office of the Regional Director, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320 (404) 526-7222

Great Lakes Region, Office of the Regional Director, Federal Aviation Administration, 2300 East Devon, Des Plaines, Illinois 60018 (312) 694-4500

Southwest Region, Office of the Regional Director, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101 (817) 624-4911

Central Region, Office of the Regional Director, Federal Aviation Administration, 601 E. 12th Street, Kansas City, Missouri 64106 (816) 374-5626

Rocky Mountain Region, Office of the Regional Director, Federal Aviation Administration, Park Hill Station, P.O. Box 7213, Denver, Colorado 80207 (303) 837-3646

Western Region, Office of the Regional Director, Federal Aviation Administration, P.O. Box 92007, WorldWay Postal Center, Los Angeles, California 90009 (213) 536-6427

Northwest Region, Office of the Regional Director, Federal Aviation Administration, FAA Building, Boeing Field, Seattle, Washington 98108 (206) 767-2780

FEDERAL HIGHWAY ADMINISTRATION

Region 1, Regional Administrator, Federal Highway Administration, 4 Normanskill Boulevard, Delmar, New York 12054 (518) 472-6476

Region 3, Regional Administrator, Federal Highway Administration, Room 1621, George H. Fallon Federal Office Building, 31 Hopkins Plaza, Baltimore, Maryland 21201 (301) 962-2361

Region 4, Regional Administrator, Federal Highway Administration, Suite 200, 1720 Peachtree Road, N.W., Atlanta, Georgia 30309 (404) 526-5078

Region 5, Regional Administrator, Federal Highway Administration, Dixie Highway, Homewood, Illinois 60430 (312) 799-6300

Region 6, Regional Administrator, Federal Highway Administration, 819 Taylor Street, Fort Worth, Texas 76102 (817) 334-3232

Region 7, Regional Administrator,. Federal Highway Administration, P.O. Box 7186, Country Club Station, Kansas City, Missouri 64113 (816) 361-7563

Region 8, Regional Administrator, Federal Highway Administration, Room 242, Building 40, Denver Federal Center, Denver, Colorado 80225

Region 9, Regional Administrator, Federal Highway Administration, 450 Golden Gate Avenue, Box 36096, San Francisco, California 94102 (415) 556-3895

Region 10, Regional Administrator, Federal Highway Administration, Room 412, Mohawk Building, 222 S.W. Morrison Street, Portland, Oregon 97204 (503) 221-2065

URBAN MASS TRANSPORTATION ADMINISTRATION

Region I, Office of the UMTA Representative, Urban Mass Transportation Administration, Transportation Systems Center, Technology Building, Room 277, 55 Broadway, Boston, Massachusetts 02142 (617) 494-2055

Region II, Office of the UMTA Representative, Urban Mass Transportation Administration, 26 Federal Plaza, Suite 1809, New York, New York 10007 (212) 264-8162

Region III, Office of the UMTA Representative, Urban Mass Transportation Administration, Mall Building, Suite 1214, 325 Chestnut Street, Philadelphia, Pennsylvania 19106 (215) 597-0407

Region IV, Office of UMTA Representative, Urban Mass Transportation Administration, 1720 Peachtree Road, Northwest, Suite 501, Atlanta, Georgia 30309 (404) 526-3948

Region V, Office of the UMTA Representative, Urban Mass Transportation Administration, 300 South Wacker Drive, Suite 700, Chicago, Illinois 60606 (312) 353-6005

Region VI, Office of the UMTA Repreventative, Urban Mass Transportation Administration, Federal Center, Suite 9E24, 1100 Commerce Street, Dallas, Texas 75202 (214) 749-7322

Region VII, Office of the UMTA Representative, Urban Mass Transportation Administration, c/o FAA Management Systems Division, Room 1564D, 601 East 12th Street, Kansas City, Missouri 64106 (816) 374-5567

Region VIII, Office of the UMTA Representative, Urban Mass Transportation Administration, Prudential Plaza, Suite 1822, 1050 17th Street, Denver, Colorado 80202 (303) 837-3242

Region IX, Office of the UMTA Representative, Urban Mass Transportation Administration, 450 Golden Gate Avenue, Box 36125, San Francisco, California 94102 (415) 556-2884

Region X, Office of the UMTA Representative, Urban Mass Transportation Administration, 1321 Second Avenue, Suite 5079, Seattle, Washington (206) 442-0590

DEPARTMENT OF THE TREASURY

Office of Assistant Secretary for Administration, Department of the Treasury, Washington, D.C. 20220 964-5391

UPPER MISSISSIPPI RIVER BASIN COMMISSION

Office of the Chairman, Upper Mississippi River Basin Commission, Federal Office Building, Fort Snelling, Twin Cities, Minnesota 55111 (612) 725-4690

WATER RESOURCES COUNCIL

Office of the Associate Director, Water Resources Council, 2120 L Street, N.W., Suite 800, Washington, D.C. 20037 254-6442

APPENDIX IV—STATE AND LOCAL AGENCY REVIEW OF IMPACT STATEMENTS

1. OMB Circular No. A-95 through its system of clearinghouses provides a means for securing the views of State and local environmental agencies, which can assist in the preparation of impact statements. Under A-95, review of the proposed project in the case of federally assisted projects (Part I of A-95) generally takes place prior to the preparation of the impact statement. Therefore, comments on the environmental effects of the proposed project that are secured during this stage of the A-95 process represent inputs to the environmental impact statement.

2. In the case of direct Federal development (Part II of A-95), Federal agencies are required to consult with clearinghouses at the earliest practicable time in the planning of the project or activity. Where such consultation occurs prior to completion of the draft impact statement, comments relating to the environmental effects of the proposed action would also represent inputs to the environmental impact statement.

3. In either case, whatever comments are made on environmental effects of proposed Federal or federally assisted projects by clearinghouses, or by State and local environmental agencies through clearinghouses, in the course of the A-95 review should be attached to the draft impact statement when it is circulated for review. Copies of the statement should be sent to the agencies making such comments. Whether those agencies then elect to comment again on the basis of the draft impact statement is a matter to be left to the discretion of the commenting agency depending on its resources, the significance of the project, and the extent to which its earlier comments were considered in preparing the draft statement.

4. The clearinghouses may also be used, by mutual agreement, for securing reviews of the draft environmental impact statement. However, the Federal agency may wish to deal directly with appropriate State or local agencies in the review of impact statements because the clearinghouses may be unwilling or unable to handle this phase of the process. In some cases, the Governor may have designated a specific agency, other than the clearinghouse, for securing reviews of impact statements. In any case, the clearinghouses should be sent copies of the impact statement.

5. To aid clearinghouses in coordinating State and local comments, draft statements should include copies of State and local agency comments made earlier under the A-95 process and should indicate on the summary sheet those other agencies from which comments have been requested, as specified in Appendix I of the CEQ Guidelines.

[FR Doc.73-15783 Filed 7-31-73;8:45 am]

and local officials. The EPA Regional Administrator's office should be able to answer many program questions directly. Contact information for these offices is shown below.

Region I: (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)
Environmental Protection Agency
Room 2203
John F. Kennedy Federal Building
Boston, Massachusetts 02203

Regional Administrator	617/223-7210
Public Affairs Director	617/223-4704

Region II: (New Jersey, New York, Puerto Rico, Virgin Islands)

Environmental Protection Agency
Room 1009
26 Federal Plaza
New York, New York 10007

Regional Administrator	212/264-2525
Public Affairs Director	212/254-2515

Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia)
Environmental Protection Agency
Curtis Building
6th & Walnut Streets
Philadelphia, Pennsylvania 19106

Regional Administrator	215/597-9814
Director, Congressional & Public Affairs	215/597-9370

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)
Environmental Protection Agency
1421 Peachtree Street, N.E.
Atlanta, Georgia 30309

Regional Administrator	404/881-5727
Public Affairs Director	404/881-3004

Region V (Illinois, Indiana, Michigan, Ohio, Wisconsin)
Environmental Protection Agency
230 S. Dearborn
Chicago, Illinois 60604

Regional Administrator	312/353-5250
Public Affairs Director	312/353-5800

Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas)
Environmental Protection Agency
Suite 1100
1600 Patterson Street
Dallas, Texas 75201

Regional Administrator	214/749-1962
Public Affairs Director	214/749-1962

Region VII (Iowa, Kansas, Missouri, Nebraska)
Environmental Protection Agency
1735 Baltimore Avenue
Kansas City, Missouri 64108

Regional Administrator	816/374-5493
Public Affairs Director	816/374-5894

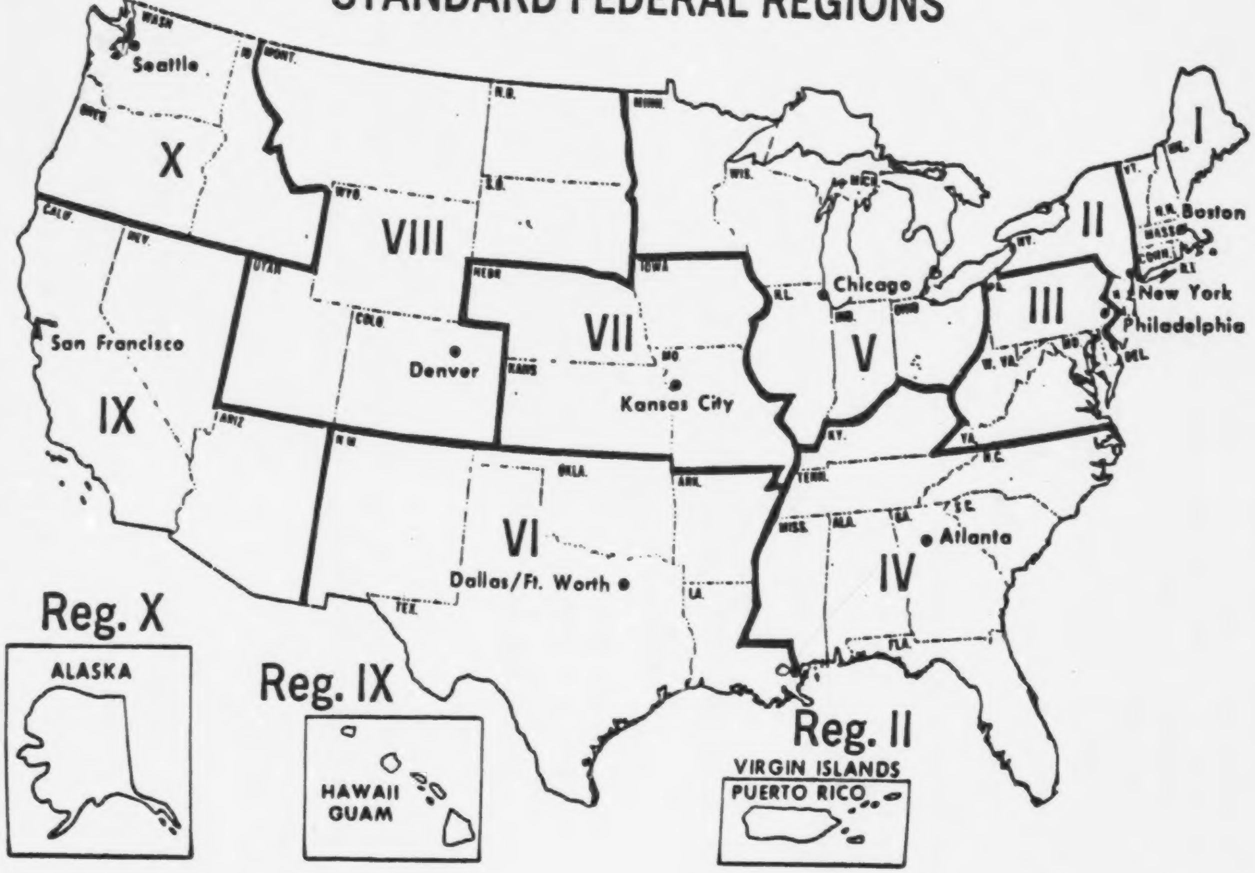
Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah Wyoming)
Environmental Protection Agency
Suite 900
1860 Lincoln Street
Denver, Colorado 80203

Regional Administrator	303/837-3895
Public Affairs Director	303/837-4905

Region IX (Arizona, California, Hawaii, Nevada)
Environmental Protection Agency
100 California Street
San Francisco, California 94111

Regional Administrator	415/556-2320
Chief, External & Inter-Governmental Branch	415/556-6266

STANDARD FEDERAL REGIONS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ALASKA
Reg. IX
HAWAII
GUAM
Reg. II
VIRGIN ISLANDS
PUERTO RICO

Region X (Alaska, Idaho, Oregon, Washington)
Environmental Protection Agency
1200 6th Avenue
Seattle, Washington 98101

Regional Administrator	206/442-1220
Public Affairs Director	206/442-1203

EPA's regulatory mission and funding authority for environmental improvements are organized by program area. Information contacts in a number of key offices are listed below.

Air Quality and Waste Management	Office of Air and Waste Management (has responsibility for EPA's air, solid waste, noise and radiation programs, related policy evaluation assistance and selected demonstration projects.) Edward Tuerk 202/755-0482
	Regional Liaison and Special Projects Officer Doyle Borchers 202/755-0470
Emission Standards	Emission Standards and Engineering Division (responsible for developing national emission standards for hazardous pollutants, national performance standards for new sources, and conducting emission tests, as support data. Provides technical assistance on control technology.) Durham, North Carolina 27711 Donald Goodwin 919/688-8146
Monitoring	Monitoring and Data Analysis (analyzes and evaluates air quality, emission and related engineering data. Develops methodologies for determination of trends on standards attainment; operates national data bank for air quality and emission data; evaluates air pollution control strategies; reviews environmental impact statements.) Durham, North Carolina 27711 Robert Neligan 919/688-8146

(Air Quality & Waste Management, Cont'd.)

Planning and Standards	Office of Air Quality Planning and Standards, Research Triangle Park, Durham, North Carolina 27711 Walt Barber 919/688-8146
Regional Control Implementation Plans	Control Program Development Division (has responsibility for developing technical policy, procedures and guidelines for control programs; provides technical direction, support, and initiation of regional activities, including implementation plans; conducts manpower development and training programs; compiles and disseminates technical information). Durham, North Carolina 27711 Jean Schueneman 919/688-8146
Source Control Strategies	Strategies and Air Standards Division (identifies pollutants and analyzes control strategy; conducts land use, transportation planning and energy studies; recommends new or revised air quality standards and does cost studies) Durham, North Carolina 27711 Joseph Padgett 919/688-8146
Technical Information	Air Pollution Technical Information Center (APTIC) (responsible for the collection and dissemination of all domestic and foreign technical literature related to air pollution.) Durham, North Carolina 27711 Peter Halpin 919/549-8411
Community Development	Office of Federal Activities, Community Development Liaison Staff Hq (acts as a focal point for EPA contacts with other Federal agencies responsible for, or involved in, community development programs, particularly on environmental impact statements and Federal activities that affect the environment) Joseph McCabe, Wash., D.C. 202/245-3066
Noise Abatement	Office of Noise Abatement and Control Chuck Elkins 202/557-7777
Pollution Control Technology	Office of Monitoring and Technical Support Albert Trakowski 202/426-2202

(Pollution Control Technology, Cont'd.)

	Office of Energy, Minerals & Industry	Richard Laska	202/755-4857
	Office of Air, Land and Water Use	William Frietsch	202/426-4255
Pollution Effects on Health and Environment	Office of Health and Ecological Effects	Harry Thron	202/755-0611
	Science Advisory Board	Patricia Williams	202/557-7710
Radiation	Office of Radiation Programs	Dr. Robert Augustine	202/755-4894
Solid Waste Management	Office of Solid Waste Management Programs	Sheldon Meyers	202/755-9170
	Technical Information Staff	Thomas F. Williams	202/254-7496
	Solid Waste Information Retrieval System (SWIRS)	John Connolly	202/755-9157
Water and Hazardous Materials	Office of the Assistant Administrator for Water and Hazardous Materials Headquarters	Betty West	202/755-0511
Criteria and Standards, Hazardous Discharge	Criteria and Standards Division (develops water quality, toxic effluent and hazardous discharge standards; develops guidance for lake restoration, vessel waste control, and control of in-place toxic pollutants)	Kenneth Mackenthun	202/755-0100
Pesticides	Information Branch, Office of Pesticide Programs	Paul Fuschini	202/426-2432
Toxic Substances	Office of Toxic Substances	Joni Repash	202/755-6956
Water Programs	Office of the Deputy Assistant Administrator for Water Program Operations Hq	Ralph Hart	202/426-2518

(Water Programs, Cont'd.)

Coordination, State Pollution Control	Water Planning Division (assists the states and regional agencies in establishing water quality standards and in planning local water resources management; develops policies related to state program grants; develops and coordinates overall water pollution control strategy for EPA; develops non-point source institutional controls and guidelines) Edmund Notzon 202/755-6928
Drinking Water Supply	Office of Water Supply (develops criteria and minimum standards for the quality of drinking water systems) Dr. Ervin Bellack 202/755-5643
Effluent Guidelines	Effluent Guidelines Division (develops guidelines for industrial wastewater discharge for incorporation in industrial permits) Robert Shaffer 202/426-2576
Monitoring	Monitoring and Data Support Division (monitors water quality nationwide and maintains a data system in support of water clean-up efforts) Fred Leutner 202/426-7764
Oil and Special Materials	Oil and Special Materials Control Division (implements plans and programs for the prevention, and when necessary, the clean-up of water pollution from spills of oil and other hazardous materials, and ocean pollution; coordinates review of environmental impact statements) Kenneth Biglane 202/245-3048
Planning and Standards	Office of Water Planning and Standards David Hoadley 202/755-6868
Wastewater Treatment, Construction	Municipal Construction Division (provides national direction and coordination to assistance programs for the design, construction, operation, and maintenance of municipal wastewater treatment) Harold Cahill 202/426-8986
Wastewater Treatment, Operations	Municipal Operations and Training Division (develops programs to use wastewater treatment construction grants and permit activities to improve operational efficiency of municipal wastewater treatment facilities; develops training programs for skilled water pollution personnel) Dr. Robert Zeller 202/426-8820

Government research laboratories house rich stores of information. Publications are the usual mode of releasing their findings to the public. They are not organized to handle requests for information by outsiders on a regular basis. Yet, a very specific request, put at just the right place could receive an authoritative, highly substantive answer.

EPA operates 15 laboratories across the country. They are organized for research and development in four major subject areas.

Monitoring and Technical Support

Environmental Monitoring and Support Laboratory Environmental Protection Agency Research Triangle Park, N. Carolina 27711	S. David Shearer (Acting) Director 919/549-8411
Environmental Monitoring and Support Laboratory Environmental Protection Agency Cincinnati, Ohio 45268	Dwight G. Ballinger (Acting) Director 513/684-2200
Environmental Monitoring and Support Laboratory Environmental Protection Agency P. O. Box 15027 Las Vegas, Nevada 89114	Delbert S. Barth (Acting) Director 702/736-2969

Energy, Minerals and Industry

Industrial Environmental Research Laboratory Environmental Protection Agency Research Triangle Park, N. Carolina 27711	John K. Burchard (Acting) Director 919/549-8411
Industrial Environmental Research Laboratory Environmental Protection Agency Cincinnati, Ohio 45268	Director - Vacant

Air, Land and Water Use

Environmental Sciences Research Laboratory Environmental Protection Agency Research Triangle Park, N. Carolina 27711	A. Paul Altshuller (Acting) Director 919/549-8411
Municipal Environmental Research Laboratory Environmental Protection Agency Cincinnati, Ohio 45268	A. W. Breidenbach (Acting) Director 513/684-8201

Robert S. Kerr Environmental Research Laboratory, EPA P. O. Box 1198 Ada, Oklahoma 74820	William C. Galegar (Acting) Director 405/332-8800
Environmental Research Laboratory, EPA College Station Road Athens, Georgia 30601	David W. Duttweiler (Acting) Director 404/546-3134

Health and Ecological Effects

Health Effects Research Laboratory Environmental Protection Agency Research Triangle Park, N. Carolina 27711	John H. Knelson (Acting) Director 919/549-8411
Health Effects Research Laboratory Environmental Protection Agency Cincinnati, Ohio 45268	John Garner (Acting) Director 513/684-8201
Environmental Research Laboratory, EPA 200 SW 35th Street Corvallis, Oregon 97330	A. F. Bartsch (Acting) Director 503/752-4211
Environmental Research Laboratory, EPA 7201 Congdon Boulevard Duluth, Minnesota 55804	Donald I. Mount (Acting) Director 218/727-6692
Environmental Research Laboratory, EPA South Ferry Road Narragansett, Rhode Island 02882	Eric D. Schneider (Acting) Director 401/847-8176
Environmental Research Laboratory, EPA Sabine Island Gulf Breeze, Florida 32561	Thomas W. Duke (Acting) Director 904/932-5326

Besides the Environmental Protection Agency, there are other Federal agencies with more or less comprehensive environmental responsibilities. Some of these are cited below, along with addressed where inquiries may be made for program information, references to available reports, referrals to knowledgeable individuals within their respective organizations or information about regional matters.

Department of Commerce

Economic Development Administration
Office of Public Affairs, Room 7019
14th St. and Constitution Ave., N.W.
Washington, D.C. 20230
Tel: 202/377-5113

Concerned with depressed areas, overall economic development planning.

National Oceanic and Atmospheric Administration, Office of Coastal Zone Management
3300 Whitehaven Parkway
Washington, D.C. 202035
Tel: 202/634-4235

Regional officials for this program are assigned to monitor activities in different parts of the nation but they are stationed in Washington.

Department of Housing and Urban Development

Office of Policy Development and Research
451-7th Street, S.W.
Washington, D.C. 20410
202/655-5600

Office of Environmental Quality
451-7th Street, S.W.
Washington, D.C. 20410
202/755-6308

These two DHUD offices have information on the environmental aspects of housing, comprehensive planning and community development under DHUD's purview. The Department has assembled nationwide data on State environmental management planning and policy for its own use in monitoring program requirements. The information is a good base for studying comparative approaches among the states as well.

Department of the Interior

The partial listing of offices within the Department of Interior indicates the range for the Department's responsibilities. Pursuit of these many and varied missions has made the Department a most important source of information about the nation's land, water and mineral resources.

Bureau of Land Management
Department of the Interior
Washington, D.C. 20240
202/343-5717

Besides managing the Nation's 450 million acres of Federal lands, the Bureau is responsible for surveying these lands, maintaining public records, arranging leases between the Federal government and state and local government agencies and non-profit organizations for portions of these lands, mineral leasing on public land held by other Federal agencies, and leasing of mineral deposits of the Outer Continental Shelf.

Bureau of Mines
Department of the Interior
Washington, D.C. 20240
202/343-2052

The Bureau of Mines does research with the objective of fostering private sector development of the Nation's mineral and fuel resources to serve national needs, and seeing that such exploitation occurs with the minimum of waste and social and environmental damage. Research subjects include laws pertaining to technology of minerals processing, use, reuse and disposal, as well as mine health and safety.

Bureau of Outdoor Recreation
Department of the Interior
Washington, D.C. 20240
202/343-4805

This Bureau is the Federal focal point for coordination of planning and financing for public outdoor recreation and fostering conservation and use of the nation's outdoor recreation resources. They assist

(Dept. of Interior, Cont'd.)

states with grants and technical assistance, study certain rivers and trails for possible inclusion in the national wild and scenic rivers and trails systems, and analyze their inventories of recreation resources available in light of long-range national needs.

Bureau of Reclamation
Department of the Interior
Washington, D.C. 20240
202/343-4662

The Bureau studies and plans for regulation and utilization of water and related land resources in the 17 western states under its jurisdiction; it conducts research into water resource use and builds water projects with funds as appropriated by Congress; in connection with its water resources projects the Bureau administers repayment arrangements by water-user districts and manages matters associated with electric power generated by its water projects.

Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife
Washington, D.C. 20240
202/343-5634

The Bureau is concerned with the conservation, management and protection of land and water environments. Activities include biological monitoring, surveillance of pesticides, heavy metals, thermal pollution, fish and wildlife populations, and ecological studies. Responsibilities include protection of endangered species of wildlife, conservation education, and administration of grant programs to states for projects to conserve and enhance the Nation's fishery resources.

U.S. Geological Survey
National Center
Reston, Virginia 22092
703/860-7000

The Geological Survey is charged with the classification of the public lands and the examination of the geological structure, mineral resources and products of the national domain. Their survey mission

(Dept. of Interior, Cont'd.)

extends outside the national domain as well. The U.S.G.S. does topographic mapping and chemical and physical research, gauging of water streamflows, measurement of quality distribution and availability of both surface and groundwater, publication and sale of their survey products, e.g. the *Catalog of Information on Water Data*. They conduct hydrologic studies of the interrelations between climate, topography, vegetation, soils and the water supply; and operate the Earth Resources Observation Systems (EROS) for remote-sensor-acquired earth science data. Photographic products from aerial and satellite-borne cameras are sold from the EROS Data Center in Sioux Falls, South Dakota, Tel: 605/339-2270

Geological Survey maps, reports and publications can be examined at the following places:

Geological Survey Library
Denver Field Center Library
Federal Center
Denver, Colorado 80225

Menlo Park Field Center Library
Menlo Park, California 91025

Map and Field Data Sections
Arlington, Virginia
Rolla, Missouri
Denver, Colorado
Menlo Park, California

Office of Oil and Gas (Headquarters;and field offices in Boston; Denton, Texas; Chicago, Denver, San Francisco, Houston and New Orleans)

Publishes technical pamphlets on worldwide crude oil prices, distribution and tanker use, supply and demand in support of its oil and gas policy setting mission.

Office of Saline Water (Headquarters)
Contracts for and makes grants for research into saline water conversion and use.

(Dept. of Interior, Cont'd.)

Office of Water Resources Research
202/343-4607

Makes grants and contracts for water resources research and training; publishes Water Resources Research Catalog (available from the Superintendent of Documents, GPO) and Selected Water Resources Abstracts (available from National Technical Information Service, Springfield, Va. 22151 by subscription). They operate a water resources scientific information center as well with special document collections on animal feed lot wastes, textile wastes and thermal pollution.

Resource and Land Information Program (RALI)
(Geological Survey)
Provides mapped data for U.S. and multi-state areas at scales of 1:100,000 - 1:250,000, much of which will be suitable for computer compilation, interpretation, analysis and display plus detailed coverage of state and local high priority areas at larger scales. RALI provides raw field data such as fish counts, interpreted information such as assessment of landslide potential or building suitability of soils in specific locations, predictions of flood potential or applications of analytic models to predict outcome of alternative policies.

For additional environmental inventory information,* the U.S. Geological Survey and the Department of Housing and Urban Development list several sources, (see following page).

It would be advisable to start with the state agencies whose environmental management and planning activity call for use of this data. They would

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*State, regional and local needs for natural resource data are currently a subject of high interest. Intensified environmental responsibilities require more and better data than ever before. The Geological Survey's Resource and Land Information Program has information on the current status of this problem. An earlier effort to survey the inventory data available for the states was made by the U.S. Army Corps of Engineers and Smithsonian Institution, but their publication is out of print.

TABLE 2.—*Some sources of earth-science information*

- Federal agencies
  - U.S. Department of the Interior
    - Geological Survey
    - Bureau of Mines
    - Bureau of Reclamation
    - Bureau of Land Management
  - U.S. Department of Agriculture
    - Extension Service
    - Soil Conservation Service
    - Forest Service
  - U.S. Department of Commerce
    - National Oceanic and Atmospheric Administration
  - U.S. Department of Army
    - Army Corps of Engineers
  - Energy Research and Development Administration
  - Environmental Protection Agency
  - National Aeronautics and Space Administration
  - Tennessee Valley Authority
- State divisions or departments
  - Agriculture
  - Conservation
  - Forestry
  - Geological Surveys
  - Oil and Gas
  - Soil Conservation
  - Fish and Game
  - Water Resources
  - Water Quality
  - Mineral Resources
  - Colleges and universities
- County or city departments or special districts
  - Planning
  - Water
  - Flood Control
  - Agriculture
  - Parks and Recreation
  - Engineering
  - Building and Safety
  - Public Works
- Private producers
  - Consulting firms
  - Private colleges and universities
  - Professional societies
  - Industries with in-house capabilities

Source: Earth-Science Information in Land-Use Planning -- Guidelines for Earth Scientists and Planners, by William Spangle & Associates; F. Beach Leighton & Associates; and Baxter, McDonald & Company. Geological Survey Circular 721, 1976, p. 5.

be familiar with what each source offers and its usefulness for the intended purpose, as well as materials locally available and sufficiently detailed for state and local uses. Names and addresses of the states' environmental program administrators are shown in the directory which is appended.

Federal Government Data Systems and Information Centers

The U.S. Government has established many technical information systems, among them a considerable number handling environmental subjects. Some of the systems are mainly for intragovernmental use. Other sources will be useful primarily to scientists capable of interpreting the data in the form as it emerges.

The National Technical Information Service (NTIS) carries a wide-ranging selection of studies are reports useful to the layman. Its function is to distribute this material; and it does so in a variety of forms and through several services described in the "Secondary Literature" section of this guide. NTIS' weekly publications announcements and annual indexes are available for annual charges of $60 or so. For such subject groupings as "environmental pollution," "urban technology," "state and local government" they tell the searcher what the system holds. Orders for stapled paper reports (hard copy) or microfiche can be placed by mail. Prices are reasonable, geared to the reproduction costs entailed by the document's size.

All EPA reports and publications are entered into the NTIS system, but other agencies do not use this clearinghouse to the same extent. HUD, for example, has very few of its studies available in NTIS reprint. The Department of Interior usually publishes through the Government Printing Office.

The following list* identifies the systems, the agencies that operate them and their respective missions. It illustrates the wide range of environmental subjects on which data is systematically collected, stored and made available for later retrieval.

Agriculture:	Current Research Information System, Department of Agriculture, Washington, D.C. To keep up to date on investigations of ongoing agricultural research scientists and provide information on the ongoing research programs of the Dept. of Agriculture. Not a bibliographic source.

*Source: Martha C. Sager and Charles M. Cargille, "Information Handling in Environmental Sciences" in Management of Information Handling Systems, Paul W. Howerton, Ed., Hayden Book Co.: Rochelle Park, N.J. 1974.

(Agriculture)

National Agricultural Library, Beltsville, Maryland. To acquire and announce published information on subjects connected with agriculture. Holdings are in AGRICOLA data base, computerized for on-line search.

Prime and Unique Farmlands Inventory, USDA Soil Conservation Service. To survey and document all prime and unique farmlands, nationwide.

Air Pollution & Control:

Air Pollution Control Office, Raleigh, North Carolina. To provide technical and legal assistance to state and local air pollution control agencies.

Air Pollution Technical Information Center, Research Triangle Park, North Carolina. To acquire, store, retrieve, reproduce, and disseminate needed air pollution technical information and to coordinate activities with other libraries.

Air Resources Laboratories, National Oceanic and Atmospheric Administration, Silver Spring, Maryland. To study and quantify the transport, diffusive, and removal properties of the atmosphere as it affects pollution.

Division of Health Effects Research, Bureau of Criteria and Standards, Air Pollution Control Office, Durham, North Carolina. To develop intelligence relative to the effects of air pollution on health.

Emergency Operations Control Center, Air Pollution Control Office, Research Triangle Park, North Carolina. To receive data relating to air pollution episodes.

Federal Facilities Air Pollution Inventory Program, Federal Facilities Branch, Air Pollution Control Office, Rockville, Maryland. To store and analyze information regarding the Federal contribution to regional air pollution.

Fuel Additive Registration, Air Pollution Control Office, Durham, North Carolina. Registration of fuel additives in fuels designated by the Administrator, Environmental Protection Agency.

National Meteorological Center, National Oceanic and Atmospheric Administration, National Weather Service, Suitland, Maryland. Analysis and prediction of air pollution potential.

(Air Pollution & Control)	*Storage and Retrieval of Air Quality Data (SAROAD)*, Data Systems Section, Division of Air Quality and Emission Data, Cincinnati, Ohio. An air quality data bank to provide summaries and data to contributing agencies and researchers upon request.
Animals and Plants:	*Biogeochemical Ecology Information Center*, Oak Ridge National Laboratory, Oak Ridge, Tennessee. To make both bibliographic references and environmental data available to scientists and others conducting research in, or making decisions about, the environment.
	Ecological Information and Analysis Center, Battelle Memorial Institute, Columbus, Ohio. To collect and retrieve information relevant to bioenvironmental and ecological studies.
	Environmental Pollution Effects of Aquatic Resources, Montlake Biological Laboratory, National Marine Fisheries Service, Seattle, Washington. To provide information concerning environmental variables and their effects upon aquatic biota.
	Flora North America Program, Dept. of Botany Smithsonian Institution, Wash.,D.C., Biological research & maintenance of an electronic data bank on the vascular plants of the North American continent north of Mexico, including ecological data.
	Smithsonian Institution Libraries, Natural History Building, Washington, D.C. To supply information from the literature documenting the characteristics of the biota.
Biomedical:	*Carcinogenesis Bioassay Data System*, NIH, Bethesda, Maryland. To develop a computer system for selected information generated by the Carcinogenesis Bioassay Program and to provide for publication of the results of literature survey in the field of carcinogenesis.
	Environment Hygiene Agency, Department of the Army, Edgewood Arsenal, Maryland. To store and disseminate toxicologic and environmental pollution data.

(Biomedical)

Environmental Mutagen Information Center, Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee. To collect information of the genetic effects of chemicals and environmental pollutants.

Information Center for Internal Exposure, Health Physics Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee. Estimation of dose received from internally deposited radionuclides and analysis of information relevant to metabolic questions involved in estimating internal exposure.

Information Storage and Referral Section, National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina. Primarily, to provide information internally to the Institute's Scientific Directorate and to intramural scientists.

Medical Literature Analysis and Retrieval System (MEDLARS), National Library of Medicine, Bethesda, Maryland. To index the literature of medicine and related fields and publish bibliographies of the biomedical literature and prepare searches of computer-stored citations on request.

Office of Information, Bureau of Radiological Health, Rockville, Maryland. To collect and retrieve literature dealing with X-ray, radiation, and radiological health.

Pesticide Effects on Health, Division of Community Studies, EPA, Chamblee, Georgia. To collect clinical & biochemistry information and literature on pesticides & their effects on health; to disseminate through publications and reference services its findings.

Radiological Health Library, Bureau of Radiological Health, Rockville, Maryland. Centralized storage of books, journals, and technical reports for support of research projects within the agency.

Radiotoxicology Information Center, Southeast Radiological Health Laboratory, Montgomery, Alabama. To act as poison control center with regard to exposure to radioisotopes and to provide bibliographies concerning isotope toxicology.

(Biomedical)	Scientific Reference Services Branch, Bureau of Occupation Safety and Health, Cincinnati, Ohio. Dissemination of technical information on occupational safety and health.
	Toxicology Information Program, National Library of Medicine, Bethesda, Maryland. To computerize general data banks for the toxicological literature and about toxicologists, and to perform reference services in toxicology.
Land Use:	Geologic Division, U.S. Geological Survey, Wash., D.C. The identification of topographic, hydrologic geological structure & other factors that bear on the use of the land & maintenance of environmental quality.
	Housing and Urban Development Library, Department of Housing and Urban Development, Wash., D.C. Provides technical information & documentation resources & service in housing and urban affairs.
	National Aeronautics and Space Administration, Landsat - Imagery of earth conditions from remote-sensing satellite data (ERTS follow-on program)
	Public Land Cleanup, Bureau of Land Management, Wash., D.C. To make the public aware of the problems of land pollution through education and participation in actual cleanup projects.
	Resource and Land Investigations, U.S. Geological Survey. To make land capability & resources survey data & maps available for state & local users.
Noise:	Transportation Noise Research Information Service, Highway Research Board, National Research Council, National Academy of Sciences, Washington, D.C. To develop and operate a storage and retrieval system for transportation noise research information and advise on needs and goals in the area of noise abatement.
Nuclear Science:	Division of Technical Information, Extension Atomic Energy Commission, Oak Ridge, Tennessee. To collect the international nuclear science literature and disseminate literature of the Atomic Energy Commission and its contractors.
	Isotopes Information Center, Oak Ridge National Laboratory, Oak Ridge, Tennessee. To collect and disseminate information on production and uses of radioisotopes.

(Nuclear Science)	Nuclear Safety Information Center, Oak Ridge National Laboratory, Oak Ridge, Tennessee. To collect all relevant information for dissemination to the nuclear community and enhance the growth of the U.S. nuclear industry.
	Radiation Effects Information Center, Battelle Memorial Institute, Columbus, Ohio. To provide information on radiation effects on materials, devices, and systems to government and industry.
Outdoor Recreation:	Catalog of Outdoor Recreation Research, Bureau of Outdoor Recreation, Department of the Interior, Washington, D.C. To assemble descriptions of outdoor recreation and related environmental research projects.
Pollution Control Technology:	Environmental Patent Priority Program Information, Office of Information Services, Patent Office, Washington, D.C. To publicize the program of the Patent Office in giving priority in processing of patents to improve the air, water, or soil, and to provide other relevant information.
Power Sources:	Electrotechnology Laboratory, Mobility Equipment Research and Development Center, Department of the Army, Fort Belvoir, Virginia. Development of silent, efficient, reliable, and clean power sources.
Resources Inventory:	Division of Technical Reports, Office of Mineral Information, Bureau of Mines, Department of Interior, Washington, D.C. To conduct inquiries concerning mining and disseminate the results of its findings.
	Engineering Topographic Laboratories, U.S. Army Corps of Engineers, Ft. Belvoir, Virginia. Provision of environmental planning documents.
	Natural Resources Library, Department of the Interior, Washington, D.C. To provide literature-based information relating to the present and anticipated needs of the Department of the Interior missions.
Socioeconomic Data:	RUSTIC program, Division of Biomedical and Environmental Research, ERDA. To supplement state, regional & local govt. data capability, assist state & regional agencies in providing information & assistance to local officials & facilitate exchange among various levels of govt. regarding data needs and uses.

Solid Waste:	Solid Waste Information Retrieval System (SWIRS) Solid Waste Management Office, Environmental Protection Agency, Rockville, Maryland. To provide published information on solid waste management.
Technical Information, General and Miscellaneous:	Aerospace Research Applications Center, Indiana University, Bloomington, Indiana. To develop communication channels for the exploitation of the technical information resources of the U.S. on a financially self-supporting basis.
	Alloy Data Center, National Bureau of Standards, Washington, D.C. To maintain awareness of data activity in the area of physical properties of metals and alloys.
	Center for Short-Lived Phenomena, Smithsonian Institution, Cambridge, Massachusetts. An early alert system and clearinghouse for information on short-lived natural events such as volcanic eruptions, etc.
	Chemical Kinetics Information Center, National Bureau of Standards, Washington, D.C. To collect and retrieve data on the rates of chemical reactions.
	Chemical Thermodynamic Data Center, National Bureau of Stndards, Washington, D.C. To select best values of the chemical thermodynamic properties of pure substances and aqueous solutions.
	Defense Documentation Center, Cameron Station, Alexandria, Virginia. A central collection point for current Department of Defense research and technology.
	Environmental and Radiological Health Laboratories. Headquarters USAF/SBPAAP, Washington, D.C. To conduct programs to support the mission of the Air Force, from which information applicable to the general national effort of improving environmental quality may become available.
	Environmental Science Information Center (ESIC), National Ocean & Atmospheric Administration. To maintain literature-based information system complementary to NOAA's data systems & facilitate retrieval through the technical library & clearinghouse on state & local coastal zone management.

(Technical Information,
General and
Miscellaneous)

Environment Systems Application Center, Indiana University, Bloomington, Ind. To provide environmental information, including storage and retrieval systems & referral services.

Environmental Technical Applications Center, Dept. of the Air Force, Navy Yard Annex, Wash., D.C. To store & retrieve environmental data required by the Dept. of Defense & authorized contractors.

National Climatic Center, Federal Building, Asheville, N.C. To provide a ready access to climatological & geophysical data and expedite their application to numerous fields of endeavor, e.g. hydrological, meteorological; sells satellite photographic products.

National Geophysical and Solar-Terrestria Data Center (NASDC), National Oceanic and Atmospheric Administration, Boulder, Colorado.

National Technical Information Service, (Formerly Clearinghouse for Federal Scientific and Technical Information), Department of Commerce, Springfield, Virginia. To make available the results of Government-sponsored research in science, engineering, and business.

Office of the Information Centers Coordinator, Oak Ridge National Laboratory, Oak Ridge, Tennessee. To maintain liaison between the 12 information centers within the laboratory and facility contact with outside information handling agencies.

Science and Technology Division, Library of Congress, Washington, D.C. Maintains the largest collection of technical literature, provides bibliographic and reference service, and publishes directories, including many concerned with environmental quality.

Science Information Exchange, Smithsonian Institution, Washington, D.C. To promote exchange of scientific information by an inventory of current research project summaries.

Scientific Information and Documentation Division, National Oceanic and Atmospheric Administration, Rockville, Maryland. Supervision of NOAA's scientific information activities and coordination with other government agencies and the scientific community.

(Technical Information, General and Miscellaneous)

Technical Libraries, Tennessee Valley Authority, Knoxville, Tenn., Chattanooga, Tenn., and Muscle Shoals, Alabama. To disseminate information on air, water, ground & other types of pollution & environmental quality as they concern TVA and the Tennessee Valley.

Water:

Construction and Engineering Division, Bureau of Domestic Commerce, Dept. of Commerce, Wash.,D.C. To evaluate industrial water demands & provide assessments of present and future needs.

Eutrophication Information Program, Univ. of Wisconsin, Madison, Wis. To expedite the exchange of information in eutrophication and related aspects of lakes & other inland bodies of water.

Federal Water Quality Technical Information and Management Planning System, Water Quality Office, Arlington, Va. To provide information for planning the water quality research & development program.

Maritime Environmental Protection Program, Commandant (OLE), U.S. Coast Guard, Wash.,D.C. To prevent pollution of the maritime environment and coordinate Federal activities in response to spills.

Mobility Equipment Research and Development Center, Dept. of the Army, Ft. Belvoir, Va. Development of power sources & purifiers for removal of dissolved minerals & chemical-biological-radiological agents from water.

National Flood Insurance Program, Federal Insurance Agency, Dept. of Housing & Urban Development. Identifies & maps flood-prone areas & "special flood hazard" locations in connection with its regulations & flood insurance activities.

National Ocean Survey, Oceanographic Division, Office of Hydrography and Oceanography, Rockville, Md. To observe tides & tidal currents; translate or digitize, reduce, analyze, compile, store & retrieve the data & to predict tides and tidal currents.

(Technical Information, General and Miscellaneous)

Technical Libraries, Tennessee Valley Authority, Knoxville, Tennessee, Chattanooga, Tenn., and Muscle Shoals, Alabama. To disseminate information on air, water, ground, and other types of pollution and environmental quality as they concern TVA and the Tennessee Valley.

Water:

Construction and Engineering Division, Bureau of Domestic Commerce, Department of Commerce, Washington, D.C. To evaluate industrial water demands and provide assessments of present and future needs.

Engineering Reference Branch, Breau of Reclamation, Denver Federal Center, Denver, Colorado. To store and disseminate information concerning water resources research and development.

Eutrophication Information Program, University of Wisconsin, Madison, Wisconsin. To expedite the exchange of information in eutrophication and related aspects of lakes and other inland bodies of water.

Federal Water Quality Technical Information and Management Planning System, Water Quality Office, Arlington, Virginia. To provide information for planning the water quality research and development program.

Maritime Environmental Protection Program, Commandant (OLE), U.S. Coast Guard, Washington, D.C. To prevent pollution of the maritim environment and coordinate Federal activiites in response to spills.

Mobility Equipment Research and Development Center, Department of the Army, Fort Belvoir, Virginia. Development of power sources and purifiers for removal of dissolved minerals and chemical-biological-radiological agents from water.

National Ocean Survey, Oceanography Division, Office of Hydrography and Oceanography, Rockville, Maryland. To observe tides and tidal currents, to translate or digitize, reduce, analyze, compile, store, and retrieve the data and to predict tides and tidal currents.

(Water)

National Oceanographic Data Center, National Oceanographic and Atmospheric Administration, Department of Commerce, Rockville, Maryland. To collect, process, and disseminate oceanographic data (geological, biological and physical properties of the sea water).

National Water Data Program, Water Resources Division, Geological Survey, Washington, D.C. To quantify & assess the quality of the Nation's water resources & make statistical data & summary reports available, & to develop a National Water Data System, through which all water data acquired in the U.S. is identified & accessible to all users (NAWDEX).

Office of Saline Water Information Program, Department of the Interior, Washington, D.C. To disseminate technical information concerning the development of desalting technology and to study market possibilities.

Sanitary Science Division, Mobility Equipment Research and Development Center, Department of the Army, Fort Belvoir, Virginia. To conduct research relative to water for the field army, decontamination of water containing toxic chemical, biological, and radiological agents, and disposal of solid and liquid waste.

Water Quality Technical Data and Information System (STORET), Environmental Protection Agency, Arlington, Virginia. To store and retrieve water quality data and other pollution control information.

Water Resources Council, Washington, D.C. To maintain studies on water supplies, regional programs, means for coordination of water and land resources policies and programs.

Water Resources Development Projects, Office of the Chief of Engineers, Corps of Engineers, Department of the Army, Washington, D.C. To plan for development of the nation's water and related land resources to assure best use and conservation of resources.

Water Resources Scientific Information Center (WRSIC), Department of the Interior, Washington, D.C. To insure a prompt flow of information to the Nation's water resources community by coordinating information services.

(Water)	World Data Center-A, National Oceanic and Atmospheric Administration, Rockville, Md. One of nine U.S.-located discipline-oriented subcenters of the World Data Center system, conducting international exchange of data & publications in accordance with the International Council of Science. NOAA is reponsible for materials concerning interplanetary & ionospheric phenomena, aurora, cosmic rays, geomagnetism, seismology, oceanographic, meteorological & nuclear radiation subjects. USGS is responsible for glaciology contributions; NASA for the rocket and satellite field & the U.S. Navy for latitude and longitude materials.

Consultants, Contract Research Institutions

Consultants are not normally considered information resources. They do contract with decision-makers to provide such services as literature review, data interpretation, research, state-of-the-art or technology assessment, design, policy advice and other similar counsel. Circumstances in which services of consultants are desirable, are those when staff services are unavailable, when information needed is highly judgmental or innovative rather than strictly factual, when available information is so highly technical that it requires translation into terms relevant for policy purposes or when information is so sparse that it requires augmentation or validation. A consultant may be engaged to help structure the data-gathering and analysis for decision-making, particularly when there is little precedent for dealing with the matters at issue or when much confusion and controversy surround conflicting representations of technical experts.

Specialists can be located through directories listed in the secondary literature categories, through referral by professional societies and other clients, and through citations of their published work.

Other sources

Attendance at special progams is still another way to gain information in the environmental field. Government agencies, universities, counterpart organizations and public interest groups frequently sponsor events for the purpose of exchanging knowledge, opinion or experience. Whether the programs take the form of training courses, orientation sessions, conferences, workshops, seminars, symposia, colloquia, meetings or state-of-the-science presentations, they are currently a popular mode of disseminating information, and they can be very informative.

One disadvantage of these events is that they are time-consuming. A clear advantage, which may outweigh the commitment of time, is the opportunity they afford for personal exchange and immediate clarification of questionable matters. Further, the participants who assemble can make first-hand acquaintance with people highly knowledgeable in their respective fields, people who may be valuable contacts for information in the future.

There may be no charge made for participation at some conferences. Others may entail fees on the order of $150 or more for two days' time. Many program announcements arrive on the elected official's desk unsolicited. Others are publicized in journals and newsletters.

People interested after the event in what transpired sometimes have the opportunity to read about it in the sponsoring organization's newsletter or in published proceedings. Reports in periodicals may come out within a month or so of the event. Proceedings will be less sketchy but can take up to three years before they are distributed to libraries in book form.

ENVIRONMENTAL INFORMATION
RESOURCES FOR
STATE AND LOCAL ELECTED OFFICIALS

general reference guide

SECONDARY LITERATURE

2. Secondary Literature

By no means are the elected official's needs for information confined to data from environmental monitoring, inventories, current knowledge of governmental programs and direct advice of a few experts. Materials from the environmental literature can be invaluable, or even essential, as a complement to information from these other sources. This is so whether the legislator's task of the moment be preparing to draft a bill, gathering persuasive evidence he can use in garnering support of colleagues and constituents for his proposals, writing a speech, studying the context issues against which he can evaluate public hearing or lobby representations, answering constituent requests or, in his legislative oversight duties, reviewing performance of governmental agencies.

Although the legislator's dominant mode of acquiring information is verbal-- asking and listening -- he will read material which is efficiently presented. This means it must be selectively focused on the most important points (rather than comprehensive, detailed and exhaustive). It must be clear, concise, reliable, and as up-to-date as possible. By these criteria, the primary literature of the environmental field -- specialized, technical and diffuse as it is -- holds little promise for the elected official directly.

Yet this literature, if tapped, can provide important contributions to the legislator's briefing needs. On any given issue these needs could span the range from monitored environmental quality data, to scientific documentation of cause-and-effect relationships, to maps which juxtapose various types of data permitting analysis of relationships, to assessments of available technology or economic feasibility, legal interpretations, informed predictions or surveys of what his colleagues in other states are doing about similar problems.

Because the legislator's environmental concerns may include a number of problems at any one time, and the focus of his interest shifts from one area to another, there is really no single segment of the environmental literature which can supply most of his information needs most of the time. Even in respect to a given problem area, many sources may be required in order to supply information of the required range and specificity.

Fortunately, many reference tools have been developed as guides to the literature. They can help a seeker of information learn which among the items published, bear on the subjects of his interest. Some tools go a little farther to give the gist of the contents or facilitate acquisition of the originals. Some concentrate on Federal government-sponsored research and reporting. Others cover commercial or professional sources. Materials covered may be more or less up-to-date, depending on the individual tool, and it may vary in degree of erudition or usefulness to the layman.

Many of these tools which constitute a body of secondary literature have been developed for use by the academic or industrial scientist, the legal scholar, economist, historian or specialist governmental program administrator, all of whom typically rely more than the legislator on extensive reading as a means of gaining information.

There is no question of the help they offer for policy-oriented research applications as well. Whether the elected official himself uses these tools or not, he can certainly benefit from their availability, if they improve the ability of his aides and research or reference staff to serve him.

The directories and encyclopedias, the bibliographies, abstracts, indexes, handbooks, newsletters and brochures can be used to point the way to further search in the books, documents and data that constitute the primary literature. The reference aids have intrinsic value too, inasmuch as they can identify the strength and scope of current interest in a given problem, what is known about it and by whom, and the nature of solutions that have been forwarded. An information-seeker may or may not wish to obtain original copies of a report to study contents in detail. It may be sufficient to know that the information exists and where, so that it can be retrieved if the need arises.

The reference tools which comprise the secondary literature are to be found in libraries, generally those which serve a large enough body of users to warrant investment in these resources.

EPA's Guide to State and Local Environmental Libraries lists numerous centers around the country where these materials or similar ones are available.

For example, the following libraries in Alabama are listed:

International Center for
Aquaculture Library
Auburn University
Fisheries Building
Auburn, AL 35830
TEL: 205/826-4786

Mervyn H. Sterne Library
University College
University of Alabama in Birmingham*
University Station AL 35294
TEL: 205/934-4338
Ms. M. Virginia Jackson

When reference tools are not available in the local environmental library, the range of services it can provide in short order is limited. Retrieving information that would be a reference task in well-stocked library becomes a more elaborate research project unless the reference unit has established channels of access to a larger library collection. Smaller collections linked in a network can offer opportunities for sharing resources, thereby expanding the value of each.

If state and local officials most often desire information on other state and local environmental affairs and it is not abstracted or indexed or available in libraries where preparers of bibliographies can review it, then the secondary literature has limited value for them. So far it appears that the secondary literature is most helpful on subjects national in scope and current. These are the areas with most extensive coverage and most readily retrievable primary materials, particularly subjects that have come within the interest of the Federal government.

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*An environmental law collection is located at Sanford Law School Library in Birmingham, as well.

Guides to the literature of the environmental field are described in the following pages, and some examples are cited.

Dictionaries

When technical subjects enter the public policy arena, or when a lay public seeks information in a very specialized field, translation of the jargon is crucial to understanding. This is equally true for specialists in different disciplines. The problem may be one of interpreting words, or it may extend to entire concepts.

There are dictionaries which serve as Rosetta Stones for the environmental field. Two examples are:

> Durrenberger, Robert W., *Dictionary of the Environmental Sciences*. Palo Alto, Calif: National Press Books, 1973, 282 pp., $8.95.
>
> Sarnoff, Paul, *The New York Times Encyclopedic Dictionary of the Environment*. New York: Quadrangle Books, 1971, 352 pp. $10.00.

Encyclopedias and Almanacs and Other General Introductory Sources

For a general introduction to concepts of environmental features and systems, pollution sources, conservation efforts and other aspects of the field, encyclopedias can be very informative. Authors of articles are usually identified and bibliographies, provided. Indexes and study guides can help the user find his way to associated ideas which may be worth pursuing in his search. One specialized source is:

> McGraw-Hill Encyclopedia of Environmental Sciences. New York: McGraw-Hill, 1974, 764 pp. $24.50

The more standard Encyclopedia Brittanica, in its relatively new organization, offers the Propedia, a study guide or outline to the way in which this reference work relates bodies of knowledge. The Micropedia contains brief introductions to various subjects with many cross-references; and the larger Macropedia has longer, more detailed articles.

Sources which offer overviews of a number of environmental subjects are:

> The Council on Environmental Quality, Annual Report. Washington: Government Printing Office.
>
> Reitze, Arnold W., Jr., Environmental Planning: Law of Land and Resources. Washington: North America International, 1974. $19.95.
>
> ReVelle, Charles and ReVelle, Penelope, Sourcebook on the Environment: The Scientific Perspective. Boston: Houghton Mifflin Company, 1974. 332 pp. $6.50.
>
> Ruffner, James A. and Bair, Frank E., The Weather Almanac. Detroit: Gale Research Co., 1974. 378 pp. $17.50.
>
> EPA's library considers this an indispensable aid for determining average maximum and minimum year-round termperatures around the world.

(Various editors), Man and the Environment Information Guide Series. Detroit: Gale Research Co., 1975-76.

> The series consists of six volumes covering different environmental subjects: law, education, planning, values, noise pollution and wastewater management. Volumes range in length from 200 to over 350 pages. Each is $18.00.

World Almanac and Book of Facts 1976. New York: Newspaper Enterprise Association, Inc., 1975. 984 p. $5.95.

> This book contains articles on energy, environment, pollution, plus information on states and major U.S. cities. Population data, physical and geographical statistics and climatological data are included as well.

Directories

Information on who knows what, and where to find the knowledgeable individuals and organizations is among the first needs of elected officials. In this category, there are a number of reference works that could be very helpful. These specialized directories are most likely to be found in special environmental libraries or libraries with extensive environmental collections.

Conservation Directory: A List of Organizations, Agencies and Officials Concerned with Natural Resource Use and Management. 21st ed. Washington, D.C.: National Wildlife Federation, 1976. 235 pp. $3.00
(Coverage of groups and government agencies include state, national and international. Individuals' names are indexed and bibliographic sources are listed.)

Directory of Environmental Education Facilities. New York: National Audubon Society. Nature Center Planning Division, 1969.
(Lists nature centers by states.)

Directory of Government Agencies Safeguarding Consumer and Environment. 6th ed. Alexandria, Virginia: Serina Press, 1975, 135 pp. $11.95.

Directory of Information Resources in the U.S.: Physical Sciences, Engineering, Biological Sciences, Water General Toxicology, Social Sciences, Federal Govt. et al. U.S. Library of Congress, Science & Technology Div., National Referral Center, 1971. (Lists complete data about many types of organizations that provide information, by subject, e.g. libraries, information centers, professional societies, universities, govt. agencies, etc. Available from Supt. of Documents, GPO)

Energy: A Guide to Organizations and Information Resources in the United States. Claremont, Calif: Center for California Public Affairs, 1974, 204 pp. $21.00
(Private and governmental organizations, listed by specific orientation.)

Environment USA: A Guide to Agencies, People and Resources. New York: Bowker, 1974.
(Environmental consultants are listed by state; environmental officers of corporations by industry; environmental employment and educational program information is included.)

Environment Information Sources Handbook. New York: Simon & Schuster, 1974. 568 pp. $25.00 (Includes names and addresses of conservation groups, professional societies, industry associations, Federal and state government agencies, commercial information sources, universities and study centers, and bibliographic material emphasizing current magazines, journals, etc.)

Environmental Information Systems Directory. U.S. Environmental Protection Agency, 1973. (Describes automated and manual systems supporting EPA's administrative and environmental mission operations.)

Environmental Protection Directory. 2nd ed. Chicago, Ill: Marquis Academic Media, 1976, 526 pp. $44.50 (Includes information on U.S. and Canadian Federal environmental agencies, state and provincial agencies, some city and county and national environmental public interest groups.)

Environmental Protection Research Catalog. U.S. Environmental Protection Agency, 1972. 2 volumes. (Describes over 5000 research projects under way.)

Environmental Science Technology Information Resources, Ed. S.B. Tuwiner. Noyes Data Corp., 1973. (Discusses and evaluates information sources, primary and secondary, developed from 1972 symposium sponsored by the Chemical International Information Center.)

Information Resources in the Environmental Sciences, George S. Bonn, ed. University of Illinois, Graduate School of Library Science, 1973. 238 pp. $6.00 (Papers generated from an institute; lists many sources, applications and search techniques)

United States Government Manual. Washington, D.C.: U.S. Government Printing Office, 1976. 871 pp. $6.50 (Paperback publication revised annually which lists government agencies, functions, administrators' addresses and telephone numbers.)

Washington Directory 1976. Congressional Quarterly. (Includes environmentally-oriented organizations headquartered in the nation's capital as well as government agencies.)

World Directory of Environmental Organizations, 2nd ed., edited by Thaddeus C. Trzyna and Eugene V. Coan in cooperation with the International Union for Conservation of Nature and Natural Resources, and the Sierra Club. Claremont, Calif: Sequoia Institute at Claremont, P.O. Box 30, Claremont, CA 91711. 288 pp., index, $18.
(Lists organizations, including a "User's Guide, with groups listed according to interest.)

World Environment Directory, Volume 2. Gough, Beverly E., ed., Silver Spring, Md.: Business Publishers, Inc., 1975. 811 pp. $50.
(Includes pollution control product manufacturers, foreign addresses, organizations, et al.)

Bibliographies

The task of locating information on a given subject is considerably expedited if the researcher can find bibliographies already prepared. These are lists of documents or published items such as articles and books. They may cover subjects broadly defined or narrowly; may be published as documents in their own right or as parts of other works. Citations may be limited to titles, authors, and publication information or may be more descriptive. Where to find the cited material is sometimes indicated as well. If freshly published bibliographies are available, so much the better. Even a somewhat dated bibliography is helpful as a base, however, allowing the researcher to concentrate his efforts on publications in the most recent intervening years.

Sources which may be consulted for reference to bibliographic searches covering government documents are the:

> Monthly Catalog of United States Government Publications, Superintendent of Documents, Government Printing Office. (The December issue through 1975 carried a cumulative index for the year.)
> Periodic announcements of publications available in specific subject areas, SB Announcement Series (copy of an example is appended.)
>
> Weekly subject-oriented government abstracts publications covering technical reports of government contractors, e.g. Environmental Pollution and Control, National Technical Information Service (NTIS), Department of Commerce.
>
> Semi-monthly Government Reports Announcements & Index, (NTIS) and the
>
> Annual Government Reports Index.
>
> Another source is EPA, Office of Research and Development, Environment: A Bibliography of Social Science and Related Literature. EPA-600/5-74-001. Washington, D.C., GPO, February, 1974, 860 pp.

These sources are available in many public libraries, university libraries, and by subscription. The bibliographies themselves and most, if not all, of the works which they cite, are available in Federal Depository Libraries*

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*There are more than 1000 Federal Depository Libraries across the nation which receive automatically and free of charge Federal government publications in all or selected categories. Land Grant colleges in many states are among these.

Regional Depository Libraries

Regional depository libraries are required to receive and retain one copy of all federal government documents made available to them either in printed or microfacsimile form. Regular depository libraries, which are not listed here, offer only certain classes of documents chosen by the library. For a list of all depository libraries, write to the U.S. Government Printing Office, Public Documents Dept., Washington, D.C. 20402.

State	Address/Telephone
Alabama	University of Alabama, Amelia Gayle Gorgas Library, Box S, University 35486; (205) 348-6044.
Arizona	Dept. of Administration, Library, Archives and Public Records Division, Capitol Bldg., Phoenix 85007; (602) 271-5031. University of Arizona Library, Tucson 85721; (602) 884-2101.
California	California State Library, Library-Courts Bldg., Box 2037, Sacramento 95809; (916) 445-4374.
Colorado	University of Colorado Libraries, Norlin Library, Boulder 80302; (303) 443-2211. Denver Public Library, 1357 Broadway, Denver 80203; (303) 573-5152.
Connecticut	Connecticut State Library, 231 Capitol Ave., Hartford 06115; (203) 566-4777.
Florida	University of Florida Libraries, Gainesville 32611; (904) 392-0341.
Idaho	University of Idaho Library, Moscow 83843; (208) 885-6534.
Illinois	Illinois State Library, Centennial Bldg., Springfield 62756; (217) 525-2994.
Indiana	Indiana State Library, 140 N. Senate Ave., Indianapolis 46204; (317) 633-5440.
Iowa	University of Iowa Libraries, Iowa City 52242; (319) 353-4450.
Kentucky	University of Kentucky, Margaret I. King Library, Lexington 40506; (606) 257-3801.
Louisiana	Louisiana State University Library, Baton Rouge 70803; (504) 388-2217. Louisiana Tech University, Prescott Memorial Library, Ruston 71270; (318) 257-3555.
Maine	University of Maine, Raymond H. Fogler Library, Orono 04473; (207) 581-7328.
Maryland	University of Maryland, McKeldin Library, College Park 20742; (301) 454-3011.
Massachusetts	Boston Public Library, Copley Square, 666 Boylston St., Box 286, Boston 02117; (617) 536-5400.
Michigan	Detroit Public Library, 5201 Woodward Ave., Detroit 48202; (313) 321-1000. Michigan State Library, 735 E. Michigan Ave., Lansing 48913; (517) 373-1580.
Minnesota	University of Minnesota, O. Meredith Wilson Library, Minneapolis 55455; (612) 373-3097.
Montana	University of Montana Library, Missoula 59801; (406) 243-6800.
Nebraska	Nebraska Publications Clearinghouse, Nebraska Library Commission, 1420 P St., Lincoln 68508; (402) 471-2045.
Nevada	University of Nevada, Noble H. Getchell Library, Reno 89507; (702) 784-6533.
New Jersey	Newark Public Library, 5 Washington St., Newark 07101; (201) 733-7800.
New Mexico	University of New Mexico, Zimmerman Library, Albuquerque 87106; (505) 277-5961. New Mexico State Library, 300 Don Gaspar St., Box 1629, Santa Fe 87501; (505) 827-2103.
New York	New York State Library, Washington Ave., Albany 12224; (518) 474-5930.
North Carolina	University of North Carolina, Louis Round Wilson Library, Drawer 870, Chapel Hill 27514; (919) 933-1301.
North Dakota	North Dakota State University (in cooperation with University of North Dakota, Chester Fritz Library at Grand Forks), Fargo 58102; (701) 237-8876.
Ohio	State Library of Ohio, 65 South Front St., Columbus 43215; (614) 469-2693.
Oklahoma	Oklahoma Dept. of Libraries, 200 N.E. 18, Oklahoma City 73105; (405) 521-2502.
Oregon	Portland State University Library, 934 SW Harrison St., (Box 1151), Portland 97207; (503) 229-4521.
Pennsylvania	State Library of Pennsylvania, Walnut St. and Commonwealth Ave., (Box 1601), Harrisburg 17126; (717) 787-2646.
Texas	Texas State Library, 1201 Brazos St., (Box 12927), Capitol Sta., Austin 78711; (512) 475-2166. Texas Tech University Library, Box 4079, Lubbock 79409; (806) 742-2261.
Utah	Utah State University, Merrill Library and Learning Resources Program, College Hill, Logan 84322; (801) 752-4100.
Virginia	University of Virginia, Alderman Library, Charlottesville 22901; (804) 924-3026.
Washington	Washington State Library, Olympia 98504; (206) 753-5592.
West Virginia	West Virginia University Library, Morgantown 26506; (304) 293-0111.
Wisconsin	State Historical Society Library (in cooperation with University of Wisconsin Memorial Library), 816 State St., Madison 53706; (608) 262-3421. Milwaukee Public Library, 814 W. Wisconsin Ave., Milwaukee 53233; (414) 278-3000.
Wyoming	Wyoming State Library, Supreme Court and Library Bldg., Cheyenne 82002; (307) 777-7281.

(Monthly Catalog items) or from the Government Printing Office of the National Technical Information Service.

Other sources of published bibliographies are the:

Council of Planning Librarians, Exchange Bibliographies, Post Office Box 229, Monticello, Ill., 61856.
Examples of publications that can be ordered from this organization are:

#954, David R. Unruh, "Space and Environment: An Annotated Bibliography." January, 1976, 51 pp. $5.00. And

#410, Dee, Sandra R. "A Basic Environmental Collection," June 1973. 15 pp. , and

#171, Sangster, Robert Powell. "Ecology: A Selected Bibliography." January 1971, 47 pp.

Library of Congress, Tracer Bullets, Reference Section, Science and Technology Division, 10 First St., S.E., Washington, D.C. 20540. 202/426-5670.
An example is appended.

Individual libraries or library systems often publish "pathfinders" or guides to the reference sources available in their collections that pertain to particular subjects.
Two governmental libraries with collections of material highly pertinent to environmental policy are those of the Department of Interior and the National Oceanic and Atmospheric Administration. Their reference staff, tools and periodicals are available to assist private individuals and non-Federal government agencies as well:

U.S. Department of Interior
Natural Resources Library
19th and C Streets, N.W.
Washington, D.C. 20240

National Oceanic and Atmospheric Administration (NOAA)
Atmospheric Sciences Library
8060 Thirteenth Street
Silver Spring, Maryland 20910

NOAA
Coastal Zone Management Library
3300 Whitehaven Parkway
Washington, D.C. 20035

Marine and Earth Sciences Library
6001 Executive Boulevard
Rockville, Maryland 20852

Still other bibliographies are the product of commercial publishers:

Bennett, Gary F. and Bennett, Judith C., Environmental Literature: A Bibliography. Park Ridge, N.J: Noyes Data Corporation, 1973, 134 pp.

Environment Information Center, Inc., Environmental Media Guide. New York: 1973, 40 pp. Includes books and films.

_____. The Environment Film Review: A Critical Guide to Ecology Films. New York: September, 1972. 156 pp.

Bibliographic Search Aids and Services

Sometimes there is no ready bibliography tailored for a specific line of inquiry. It is necessary, then, for the researcher to prepare, or have prepared, his own list of sources. There are quite a number of reference aids to help in this task.

The most readily available, such as a library's catalogs of books and journal holdings, may be the more time-consuming to use. They may also be the most flexible, permitting the searcher to try out various search strategies and gain a sense of the whole range of materials available in the collection. The search is, of course, limited to items in the library's collection. A positive feature, however, is the good likelihood of easy and rapid access to the materials desired. Some libraries share in producing a union catalog to their combined holdings. This widens the range of items available for search.

Some libraries have computerized book catalogs and accessible, easy-to-use terminals which speed a search considerably.

EPA publishes two catalogs annually which also expand the resources for researchers who have access to the Agency library sytem.

> The EPA Book Catalog, published annually, lists the combined book holdings of the 37 libraries in EPA's nationwide network. The location or locations of each item are indicated along with call numbers. Items newly acquired anywhere in the system are entered into a central computer file; and each week the computer produces microform lists updating the catalog. These microfiche are mailed to each library in the system. The annual catalog, if not available in local environmental libraries, can be ordered through the National Technical Information Service.
>
> EPA Journal Holdings Report catalogs the titles of periodicals held within the EPA library system, indicating the location or locations or all items listed and the years covered by each subscription.

> Index to Titles of Union List of Serials, 1975 is a joint publication of EPA and NOAA. Journals are indexed by significant words appearing in their titles.

Examples of additional reference tools are divided into two groups below: indexes and computer search services. They vary significantly in subject matter. For some the focus is environment in general; for others, specific aspects of environmental management. In still others, environmental matters are peripheral or only occasionally treated, but in a manner worthy of attention by laymen and experts.

The indexes are commonly annual cumulations of title-author-publication information. The items indexed could range from newspaper or periodical articles to conference proceedings, review articles, research reports to publications of statistical compilations. Indexes which are available the researcher in local libraries can be searched manually. Some of these are, in addition, data bases accessible to computer search.

Referenced material may be available for examination in the same libraries. Quite many of the government publications may be available at modest cost from the Government Printing Office or the National Technical Information Service.

Computer search services have the advantage of tapping many years' records rather than requiring the examination of separate annual index volumes. Depending on the frequency with which their data bases are updated, some of them can yield more recent information. Some of these services are available by subscription; others, on a one-time basis. Some permit direct search by a user from remote terminals; others perform the search service for the client and mail out the product in paper copy or microform. Another respect in which these services vary is the content of the respective outputs. The search products may consist of a list of titles, authors and dates of publication. They may go farther and include abstracts, clippings, or copies of documents and articles in paper or microform. The costs of these services may be justified by the savings of researchers' time and the expense of maintaining the complement of index sources locally. The value of the output may be influenced, however, by the relative difficulty a researcher has in acquiring copies of the referenced materials he wishes to read. One further point is that the research reports and articles, by the time they are prepared for publication, cleared by the sponsoring agencies and processed by NTIS, may contain data which is at least 18-24 months old. For truly current developments supplementary sources are needed. These are discussed under "current awareness" and "newsletters" later.

Government Catalogs and Index Publications. The government publications noted earlier for their citations of bibliographies bear mention here as well.

The Monthly Catalog of United States Government Publications. Superintendent of Docments, Government Printing Office, annual subscription.
December issue has a cumulative index except 1976. Covers materials published by government agencies for distribution to the public. The majority of the items are available in Federal Depository Libraries or for sale at GPO bookstores. Most of the remainder can be obtained from the agency that generated them.

Ecology - Price List 88 is one of several price lists put out by the GPO, indicating items in selected subjects areas that are currently in stock.

Monthly Checklist of State Publications is a publication of the Library of Congress, available on subscription from the Superintendent of Documents.
The Checklist cites copies of state publications sent to the library, many of them in accordance with state law requiring this distribution for certain categories of publication. Covering is neither comprehensive nor systematic. All materials listed are not retained by the Library and copies are available only through their respective sources. Listings are by state. There is no subject index provided.

Superintendent of Documents, GPO Bookstore addresses:

710 North Capital St., N.W., Washington, D.C. (Main Bookstore)

USIA, 1776 Pennsylvania Ave., N.W., Washington, D.C.

Commerce Dept. 14th St. and Constitution Ave., NW, Wash.,DC

Pentagon Building, Main Concourse, Arlington, Va.

State Dept., 21st St. & Virginia Ave.,NW, Wash.,DC

Federal Office Bldg., 275 Peachtree St., N.E., Atlanta, Ga.

John F. Kennedy Federal Bldg., Boston, Mass.

Federal Office Bldg., 219 S. Dearborn St., Chicago, Ill.

New Federal Bldg., 1100 Commerce St., Dallas, Texas

Federal Bldg., 601 E. 12th St., Kansas City, Mo.

Federal Bldg., 300 N. Los Angeles St., Los Angeles, Calif.

Federal Bldg.,450 Golden Gate Ave., P.O. Box 36104,
San Francisco, California

Government Reports Announcements and Index, NTIS' summaries of government research and development reports are in a form intended for libraries and reference specialists. The annual subscription rate is $200 in the U.S. The bibliographies file on which these indexes are based is also available on magnetic tape.

Weekly Government Abstracts Newsletters (NTIS-PR-205) are available by subscriptions, averaging $45 each per year. Selected subject titles with environmental relevance are: "Agriculture and Food," "Energy," "Environmental Pollution and Control," "Natural Resources," "NASA Earth Resources Survey Program," "Problem-Solving Technology for State and Local Governments," "Urban Technology." Abstracts of environmental impact statements are included as well as government research reports and bibliographic citations. The last issue of the year carries a cross-referenced, cumulative index.

EPA Reports Bibliography Quarterly (NTIS UB/B/025-76/002) lists reports entered into the NTIS by EPA in the previous quarter. Beginning in Spring 1977, Department of Interior NOAA entries to NTIS will be included as well. Subscription price is $45 per year. All EPA libraries have complete sets of EPA report entries on microfiche.

Selected Water Resources Abstracts is put out by the Water Resources Scientific Center, U.S. Department of Interior and is available from NTIS for the annual subscription rate of $100. This is a semi-monthly journal with annual index. It includes abstracts of monographs, journal articles and reports on water-related aspects of biomedical, physical and social sciences, with bibliographic citations.

Another of NTIS subscription services provides complete information on microfilm for new-issued patents; and announcements of government-owned patents and patent applications available for licensing.

The NTIS files from which these publications are generated, as well as others they maintain, are kept up to date daily. All are accessible for computer search. The computer search may be not only faster but more thorough than manual search because items subject to computer scanning are cross-referenced by many more key-word terms than the relatively few used in the printed indexes.

NTIS addresses:

5285 Port Royal Rd., Springfield, Va., 22151

U.S. Dept. of Commerce, Room 1098, 14th & E Sts.
N.W., Washington, D.C. 20230.

Index Medicus is a comprehensive subject-author index to articles from several thousand journal sources around the world, prepared by the National Library of Medicine. Access is via the annual *Index* publications themselves or on-line computer search, called MEDLINE, which is described below. Much of the literature indexed is available in the MEDLARS system of 11 Regional Medical Libraries, and accessible through interlibrary loan.

Selected References on Environmental Quality as it Relates to Health. Monthly, with annual cumulation, is a by-product of the MEDLARS data base. Arranged by structural vocabulary headings and authors' names.

Toxicity Bibliography is another work of the National Library of Medicine. It forms the basis for the TOXLINE computer search system.

National Library of Medicine
8600 Rockville Pike
Bethesda, Maryland 20014

Bibliography of Agriculture is an index to world literature on agriculture and related chemical and biological subjects, published monthly by the National Agricultural Library. Special subject bibliographies are also available for such subjects as soils and fertilizers, pest control and pesticides, areas in which the library has developed its collections of material.

AGRICOLA (formerly CAIN) is the Library's computerized cataloging and indexing data base, representing its own holdings. Many of the items cited can be ordered from the Department of Agriculture, State Experimental Stations or Extension Services. For some other materials the library may prepare copies on request. Access to the data base is possible through the Lockheed Dialog system.

National Agricultural Library
Baltimore Blvd.
Beltsville, Maryland 20705

ERIC (Educational Resources Information Center) is the computerized information bank of the National Institute of Education. One of the categories in its file is "Environmental Education."

Code of Federal Regulations and Federal Register Updates, available in law libraries -- but not an easy-to-use index for environmental researchers.

Commercially Published Indexes. There are also non-governmental indexing and abstracting services which compile information useful for the environmental field from widely diverse identified sources. Some provide service in retrieving copies of the original articles cited. Others do not. Some of these services are, as indicated, accessible for computer bibliographic search.

American Statistics Index (A.S.I.) is a publication of the CIS/Index organization. It classifies, catalogs, and abstracts the published statistical output of the Federal government. Libraries purchasing the Index may also buy microfiche files of the documents in the data base. Once identified in the Index, these microfiche may be easily retrieved and, if equipment is available, read or selectively reproduced. The ASI Index is accessible through the SDC computer system described below.

Bioresearch and Biosystematic Indexes are published by BioSciences Information Service of Philadelphia. They serve as reference entries to Biological Abstracts, put out by the same publisher. Bioresearch cites research reports which may not be in the Abstracts.
The Biosystematic Index indicates the primary field of interest in each paper, keying in by the names of the main organisms mentioned, and the type of study which is involved. Both Lockheed and SDC computer search systems draw on the BIOSIS data bases.

Chemical Abstracts Condensates is an index to world literature in the chemical fields, published by Chemical Abstracts Service Division of the American Chemical Society in Columbus, Ohio. It is a reference tool for Chemical Abstracts and capable of search by computer.

Congressional Information Service (CIS/Index) is published monthly, with quarterly index and annual accumulation of index and abstracts. Their objective is to announce every publication relating to Congress within a month of its issue, to document all hearings, all reports, legislative history, testimony, bills under consideration, et al, and to serve as cataloging guide for Congressional materials collected by libraries. They have a microfiche library, containing all documents covered in the CIS/Index since early 1970. These are available by subscription and, if a subscribing library has reader-printer equipment, can be used to retrieve paper prints of whatever portions of the material are desired. The library expense in this case is substantial. The user, however, need pay only a nominal per page reproduction charge for the printer. On-line computer search is possible as well, through SDC's system.

Current Publications in Legal and Related Fields, the Rothman Company. A bibliographic guide to legal publishing, including the field of environmental law.

Energy Index is an annual publication of the Environmental Information Center Inc. of New York. All aspects of energy are covered: articles, documents, books, Congressional hearings, conference proceedings, books, non-print media and laws. The annual subscription price for 1976 was $65. This is a cumulative reference source for the monthly abstracts journal published by the same firm, and it can be searched through on-line computer service.

Engineering Index is a product of Engineering Index Inc. of New York. International literature significant for engineering and technological applications are culled, abstracted and cross-referenced. On-line computer searches of this data base are offered by both Lockheed Dialog and SDC Orbit systems.

Environment Index, like Energy Index, is published annually by the Environment Information Center Inc. of New York. It is based on similar abstracts material (but carefully selected so as not to overlap the Energy subject area). Computer search and microform or paper copy retrieval services are available as well.

Funk and Scott Indexes by PREDICASTS, Inc. of Cleveland, Ohio covers international literature on industry influences, developments, future product demand, end users, production, statistics et al.

Index to Legal Periodicals. Reference tool for law reviews.

Index to Periodical Articles Related to Law, Oceana Publications.

Monthly Digest of Current Legislation, ASPEN Systems Corporation. A computer-generated index covering state laws as well as Federal.

Newsbank is an index to general circulation newspapers and periodicals, updated bimonthly and accompanied with microfilm capable of perusal and paper copy retrieval through a microform reader-printer. While the service represents a substantial investment for the subscribing library, the user has access to what amounts to a self-operated, tailor-made, national clipping service at the nominal cost of paper copies.

Science Citation Index is a library reference service developed to guide a researcher into a body of literature through citations of a given author's work in other scholars' publications. The idea is one of tracing developments in a given line of research. A subject index is included as well, so that the work can serve more direct research approaches as well.

Computer Search Services

A number of bibliographic search services are available, representing a variety of subject area specialties, forms of output and complementary services. Most of them retrieve information from data bases they themselves manage, or offer access to a data base managed by others. The data base is an expanding collection of literature (books, journals, reports, sometimes nonprint media, conference proceedings, raw data, etc.) in a given field which is indexed, frequently abstracted, sometimes evaluated and cross-referenced, updated continually, and programmed for rapid search by computer. Information that can be retrieved is usually a set of bibliographic citations giving title, author, and publication date of materials that fit the search criteria. Additional information such as a brief summary of the main points of the content or location of the original document in a library collection can be retrieved in some cases.

The bibliography generated by the computer may take several forms, a print-out at the remote computer terminal; display on a television-like screen (cathode ray tube) at the remote site; or a print-out generated in the search service's own facilities and mailed to the client. Some services offer access to the cited documents themselves -- in paper copy or microform. Some services are offered on a subscription basis. Others charge only for actual use of search time. One-time or occasional search services may be available to non-subscribers. The following list of organizations in the computer information retrieval field is incomplete, but it indicates the range of services available. (Brochures are appended.)

A user must know the proper vocabulary for searching a given data base. Most of the information companies provide training and reference material which tells how their respective indexing vocabularies are structured and which words to use for various aspects of meaning.

The Environment Information Center, Inc.
292 Madison Avenue
New York, New York 10017
212/949-9494

System offers energy documents, bi-monthly abstracts publication, annual index and on-line computer searching, directories of organizations and people in the energy field; environmental documents, monthly abstracts publication, annual index, microfiche of documents sent monthly by subscription or by individual request, and on-line computer searching; land use planning abstracts; film reviews, conference proceedings, information on Federal and state environmental laws and regulations in the energy fields are covered as well; Publications which are available in many library reference collections include:

Energy Information Abstracts
Energy Index
Environment Abstracts
Environment Index
Envirofiche
Land Use Planning Abstracts
Energy Directory
Energy Information Locator
Environment Regulation Handbook
Statefiche
The Environment Film Review

The Information Bank
Information Service of the New York
Times Co.

Sales Offices:
Suite 86011, One World Trade Center
New York, NY 10048 212/775-0552

Mt. Pleasant Office Park, 1719-A Rte. 10
Parsippany, N.J. 07054 201/539-5850

Suite 207, 1909 K St., N.W.
Washington, D.C. 20036 202/833-3291

Suite 500, 625 N. Michigan Ave.
Chicago, Ill. 60611 312/664-6536

Jack Tarr Office Bldg., 1225 Post St.
Suite 638-2
San Francisco, CA 94109   415/474-4700

Data base includes all news and editorial material from New York Times editions extending back from 1969 to present, plus selected items from major general circulation newspapers across the country, business publications, science journals and a variety of other newsweeklies, monthlies and quarterlies.

On-demand services are performed by New York Times personnel using the data base, and on-line service is available for subscribers; supplementary New York Times microfiche can be obtained on an annual subscription basis.

Lockheed Dialog
Dept. 15-50, Bldg. 201
3251 Hanover Street
Palo Alto, CA 94304
415/493-4411 Ext. 45635

200 Park Avenue, Suite 303E
New York, N.Y. 10017
212/682-4630

900-17th St., N.W.
Washington,D.C. 20006
202/872-5971

This is an on-line information retrieval service which offers both immediate response via computer terminal or cathode ray tube and mailing of printed search results. Access to many different literature bases is available through this service, covering many aspects of education and the social sciences, natural sciences, technology and engineering, business and economics, commercial as well as governmental publications and documented collections. Bibliographic citations or abstracts may be retrieved but document services are in most cases available only from the respective data base suppliers. Subscribers to selective dissemination of information (SDI) services receive automatically periodic announcements of new materials added to the data files in fields identified by them as having particular interest.

National Oceanic and Atmospheric Administration, Environmental Data Service (ENDEX and OASIS)

ENDEX and OASIS are computer-searchable files which give a user access to many data bases, commercial as well as those of Federal, state and local governmental agencies. ENDEX contains data references; OASIS is an access tool for literature search. From ENDEX a searcher can get descriptions of data collection efforts and data files, for example, the types of parameters and amounts of data available, methods by which they were measured, location and time of collection, format of the data, restrictions on access to it, publications where the data may be found, reference to a contact for further information and an estimate of the cost of obtaining the data. Some of the indexes are grouped by geographical area. OASIS covers literature of the environmental sciences and marine and coastal resources. Bibliographic references to technical publications can be retrieved through online search. A user may search an entire file or obtain citations only for materials newly added after a given data. This selective dissemination of information feature can operate as an automatic current awareness tool for a long-term user of the service.

On-line computer terminals are located in several different places, listed below. Users in need of referral or reference services may call, visit or write to any of these facilities. Environmental Data Service information specialists are available to help analyze requests and supply needed references.

Marine and Earth Sciences Library
NOAA Washington Science Center
Bldg. 1, Room 108
6001 Executive Blvd.
Rockville, Md. 20852
301/443-8022

Atmospheric Sciences Library
NOAA-Gramax Bldg. Room 816
8060 13th St.
Silver Spring, Md. 20910
301/427-7800

Marine and Earth Sciences Library
NOAA, Page Bldg. 2, Room 194
3300 Whitehaven Parkway, N.W.
Washington, D.C. 20235
202/634-7346

National Oceanographic Data Center
Chief, Data Index Branch D 782
NOAA, Page Bldg. 1, Room 272
2001 Wisconsin Ave., NW
Washington, D.C. 20235
202/634-7298

Suitland Information Service Center
NOAA, Federal Office Bldg., Room 3216
Suitland, Md. 20233
301/763-7432

Camp Springs Information Service Center
NOAA, World Weather Bldg., Room 702E
5200 Auth Rd.
Camp Springs, Md. 20233
301/763-8266

NOAA Miami Library (RF20x4)
Atlantic Oceanographic and Meteorological
Laboratories, Virginia Key
Miami, Florida 33149
305/350-1330

NODC/Liaison Officer
Woods Hole Oceanographic Institution
Room 317A, Clark Laboratory
Woods Hold, Mass. 02543
617/548-1400 Ext. 546

Chief, Library Services (R51)
Environmental Research Laboratories
NOAA, 1209 Radio Bldg.
Boulder, Colorado 80302
303/499-3788

NODC/Liaison Officer
NOAA, P.O. Box 271
La Jolla, CA 92037
714/453-2204

NODC/Liaison Officer
NOAA -- 3711-15th Ave., N.E.
Seattle, Washington 98105
206/543-5276

National Technical Information Service

The on-line computer search service of this organization is called NTISearch. Its data base consists of contract research to Federal government agencies, primarily. Some state and local material is available. A user may write or telephone in a request, in response to which an NTIS specialist will conduct the search. The product, a Research Summary, will contain abstracts as well as bibliographic citations and, if requested, will be accompanied when it is mailed out by microfiche of the entire texts which the Research Summary cites. Cost is $100 for up to 100 research summaries.

NTISearch
5285 Port Royal Rd.
Springfield, Va. 22161
703/321-9040 -- Hot Line

Smithsonian Science Information Exchange Inc.

(SSIE) provides a computer retrieval service for information from its files of research projects in any scientific area (life, physical, social, behavioral or engineering). The product is a package of sheets containing "Notice of research projects" (NRP's), which tell who is doing what. It is usually mailed out within 3-5 days of the request. Price is $50 for the search, including the first 50 NRP's. An additional $10 is charged for each additional 1-50 NRP's. Estimates of cost will be given to the user in advance of service. Fee for a combined NTIS (completed research) and SSIE (ongoing research) search is $85 for the search and 1st 125 citations. Each additional citation costs $.25 more.

Some published subject searches are available for considerably lower cost. Many of these are updated quarterly. Users may subscribe to an SSIE Newsletter announcing these publications for $10 per year.

Selected Dissemination of Information (SDI), the sending of current awareness notices, is an additional service available from:

SSIE
300 Madison National Bank Bldg.
1730 M St., N.W.
Washington, D.C. 20036
202/381-4211 (Telex 89495)

System Development Corporation (SDC) is a commercial on-line search service which provides access to more than two dozen data files and literature bases in the fields of agriculture, business, government, science, engineering technology and education. A search may yield bibliographic citations, abstracts or research summaries. Off-line prints mailed to the user are available at considerably lower cost than on-line printouts or CRT projections. Additional information is available from:

System Development Corporation
2500 Colorado Avenue
Santa Monica, California 90406

Current Awareness Tools

The indexes listed are useful for their relatively careful attention to cross-referencing. There are other guides to the literature which, lacking systematic indexing are primarily useful for "current awareness" scanning, or mainly to learn the scope of the most recent publications. Some of these are listed here:

Administrative and Legislative Highlights (ALH), weekly publication of the U.S. Conference of Mayors, which extracts from Federal Register and Congressional Record highlights of Federal activities affecting local government, including environmental matters.

Current Advances in Ecological Sciences. Monthly publication of Pergamon Press. Listing of titles, authors, bibliographical details and authors' addresses. Subject arrangement by habitat categories and processes.

Current Contents: Agriculture, Biology and Environmental Sciences, a weekly product of the Institute for Scientific Information. This journal reproduces tables of contents of over 800 journals, sometimes prior to their publication. Author index and address directory are provided to help the user seeking reprints.

Current Programs, published monthly by World Meetings Information Center Inc. These publishers claim they can report research and development news generated by meetings and conferences well in advance of the journal literature. Sections on life sciences, geosciences and engineering cover meetings, conferences, etc. and list papers delivered there, by title and author.

Dateline Washington is the weekly publication of the National Conference of State Legislatures. It carries highlights of Federal action that impacts the states.

Directory of Published Proceedings (Science/Engineering/Medical/Technology) SEMT Series of InterDok Corporation.
This is a bibliographic directory of preprints and published proceedings of congresses, symposia, conferences, etc. They are listed chronologically, by date of the meeting. Sources for the published materials are identified. Indexed information includes key word, sponsor and title of conference.

Environmental Periodicals Bibliography is published bimonthly by the Environmental Studies Institute of Santa Barbara, California. An annual subject and author index is included.

Hydata comes out monthly from the American Water Resources Association.
The journal is comprised of periodicals' tables of contents plus selected titles of non-periodical literature.

Marine Science Contents Tables. Monthly from FAO Fishery Resources Division, Rome, Italy.
Tables of Contents format is presented, along with schedules of future marine science meetings, conferences, etc.

Smithsonian Institution Center for Short-Lived Phenomena, Event Notification Cards and Annual Report and Review of Events, Garden Street, Cambridge, Mass.
Rapid reports of events (3-8 per week) worldwide, many of environmental impact, e.g. geophysical, astronomical, biological, anthropological. Summarized and organized by scientific discipline and subtopics such as oil spills, animal deaths, etc.

Underwater Journal Information Bulletin. Bi-monthly publication of IPC Science and Technology Press Ltd., Guildford, Surrey, England.
International coverage of articles, papers, reports. Keyword descriptions with each citation but no index is prepared. Broad general subject headings, including Pollution.

Water Resources Abstracts, issued monthly, without indexes by the American Water Resources Association.
Format is looseleaf.

Abstracts Journals

Many abstracts journals are published today, covering small portions or the full spectrum of environmental literature. Virtually every discipline or component field has its specialized publications. The abstracts journals carry extracted material or precis of the contents, culled from hundreds or thousands of articles published in a wide range of sources. They give a good idea of what subjects are receiving current attention, where and by whom and which areas are subjects of lesser interest. Nonprint media, conference proccedings, texts of relevant legislation and other information sources may be included in the abstracts journals as well. Searches for information from the primary literature will usually require a user to work with both index and abstracts documents together.

Abstracts journals come out monthly or bimonthly, commonly. Indexes are published annually, sometimes with a cumulative number covering five years past. A search on a given topic may require considerable manipulation of the volumes, many of them heavy and awkward to handle. A single indexing and abstracting source will rarely cover the whole of a problem. Therefore several may need to be consulted to provide a round sense of what information there is on a given question.

Sometimes the abstracts journals lag behind the original publications they cite by several months. Occasionally a user wishing to pursue leads acquired from these abstracts meets with frustration -- that is, when the items cited are unavailable in the original locally. Sometimes, too, the abstracting is less accurate than a user suspects. Nevertheless they are important, helpful research tools.

Like the indexes the abstracts journals are a substantial investment for a library to make. A user has a free or inexpensive source for information that would be more costly to retrieve through computer, albeit more rapid.

Examples of abstracts journals in the environmental field are shown below.

Abstracts of Air and Water Conservation Literature and Patents,American Petroleum Institute, Weekly. 1969 - .

Abstracts on Health Effects of Environmental Pollutants, Philadelphia: Biosciences Information Center, American Chemical Society. Monthly with annual cumulated index. 1972 - .

Coverage includes chemicals and other substances in the environment affecting human health, work-related health matters, industrial medicine and related subjects included also in BIOSIS and MEDLARS data bases.

Air Pollution Abstracts. Research Triangle Park, N.C.: U.S. EPA, Air Pollution Technical Information Center. Monthly with cumulated index. 1970 - .

Covers journals, conference proceedings, technical reports, chemical, physical, and biological effects, data on air pollution control.

Applied Ecology Abstracts, Monthly.

Covers natural and urban man-made or managed ecosystems.

Aquatic Sciences and Fisheries Abstracts, London: Information Retrieval Ldt. Monthly with annual indexes, 1971 - .

Abstracts international publications, books, proceedings et al in marine biology field, including ecological relationships and pollution effects.

Biological Abstracts. Philadelphia: Biosciences Information Center.

Bimonthly, semi-annual cumulative indexes. 1926 - .

Time lag between an article's publication and appearance of its abstract here may be a year. Indexes by author, biosystem, genus, crossreference list and subject (more explanatory material is appended).

Deep-Sea Research Oceanographic Abstracts and Oceanographic Bibliography Section. Pergamon Press. Bimonthly, annual author index only. 1953 - .

General subject heading and sub-heading arrangements here include "pollution" items.

Ecological Abstracts. Geo Abstracts Ltd. Bimonthly. 1974 - .

Abstracted material includes journals, books, symposia.

Energy Abstracts, New York: Environment Information Center, Inc.

All aspects of energy covered including Congressional hearings, documents, legislation, proceedings, films, articles and books.

Environment Abstracts (formerly Environment Information ACCESS). New York: Environment Information Center Inc. Monthly. Jan., 1971 - .

Abstracts items from many international and U.S. journals, government documents, conferences, film, state and local as well as Federal government.

Environmental Pollution and Control. Weekly Government Abstracts, NTIS, U.S. Dept. of Commerce. Weekly with annual index. 1972 - .

Eutrophication: A Bimonthly Summary of Current Literature. Madison: U. of Wisconsin Water Resources Information Program.

Sources abstracted include general audience and professional publications, books, journals, articles, technical reports.

Health Aspects of Pesticides Abstract Bulletin, U.S. EPA, Monthly. 1968 - .

Land Use Planning Abstracts. New York: Environment Information Center Inc . Annual. 1974 - .

Medical Literature Analysis Retrieval System (MEDLARS)

Toxicity Bibliography is derived from MEDLARS data base. Emphasis is on adverse effects of toxicity and poisoning of chemicals, pesticides and other environmental pollutants.

Occupational Safety and Health Abstracts. 1963-1973.

102 Monitor. Washington, D.C.: Council on Environmental Quality. 1971- . (Monthly.)

Announcements of Environmental Impact Statement status, i.e., notices of intents to file the EIS, notices of draft and final EIS submissions to the Council on Environmental Quality.

Pollution Abstracts. Louisville, Ky: Data Courier, Inc. Bimonthly. May, 1970 - .

Covers international technical literature on the environment, journals, technical reports, monographs, etc., including legal aspects and engineering.

Selected Water Resources Abstracts. Water Resources Scientific Information Center, U.S. Dept. of the Interior. Springfield, Va: NTIS. Semi-monthly. 1968 - . Journal plus annual index.

Abstracts monographs, technical reports, journal articles on water-related aspects of science (life, physical, social), water conservation, control, use and management subjects, engineering and legal aspects as well as scientific and technical.

Solid Waste Information Retrieval System (SWIRS) Contains information on current research in the field, documents, literature (1964 - .) Includes much material especially prepared for state and local decision-makers.

Southwestern Environmental Data Bank, Arizona State University. Monthly. 1973 - .

Statistical Abstract of the United States. Bureau of the Census, U.S. Dept. of Commerce. Washington: Govt. Printing Office. Annual.

Summary of statistics on social, political, economic aspects of U.S. Sections cover geography, environment, and energy as well as population and employment data. Sources of more comprehensive imformation are cited.

Water Pollution Abstracts. London: H.M. Stationary Office. Monthly with annual index. 1927 - .

Coverage is international but range of subjects is more narrow than in U.S.' Selected Water Resources Abstracts.

Newsletters

Most of the current awareness publications and newsletters prepared for the state or local policy official contain items related to environmental matters. For more comprehensive or specialized information, the legislator could look to selections from a long list of newsletter publications in the environmental field. Their coverage ranges from current developments, state-of-the-art reports, review articles and interpretation of new findings published in technical journals to texts of legislation, regulations and judicial decisions, and conference news.

The environmental newsletters are numerous and varied, as the following list indicates.** In general, Federal environmental news receives greater attention from these media than national overview of states' activities.

*APCD Digest: Air Pollution Control District, County of Los Angeles (monthly). Lists APCD activities, EPA plans and actions, meteorological conditions, et al.

Air and Water News (weekly). 1966 - . Stanley H. Brams, Editor and Publisher.

*Air Pollution Notes (bimonthly). 1967- . Rugers University.

*Air/Water Pollution Report (weekly), 1963 - . Business Publishers, Inc., Silver Spring, Md. Covers waste disposal, soil pollution, desalination, noise and conservation. Includes news of legislation, contract awards, new technical developments, interpretations and trends.

*California Air Environment (quarterly), 1969 - . University of California, Riverside

*California Air Resources Board Bulletin, (Bimonthly) 1962 - . California Air Resources Board.

** This list was, for the most part, compiled in 1972 by the University of Denver Research Institute. Items marked with an asterisk (*) are held in the EPA library collections.

Cape of Good Hope Department of Nature Conservation Newsletter (3-4 per year) 1965 - . Department of Nature Conservation, South Africa.

*CF Letter. (Monthly) 1966 - . Conservation Foundation.

CL Report (Published irregularly) 1971 - . Denver Public Library Conservation Library.

*Clean Air and Water News (Weekly, with quarterly index). Commerce Clearing House Inc. Air and water control news and data are reported. Also covered is information on contracts and grants, legislation and treaties.

*Clean Water Report (Bi-weekly) 1964 - . Leonard A. Eiserer, Publisher

Colorado Open Space Council Legislative Bulletin, (Published irregularly) 1972 - . Colorado Open Space Council

Colorado Open Space Council Newsletter (published irregularly) 1965 - . Colorado Open Space Council

Connecticut Conservation Reporter (10 times/year) 1967 - . Connecticut Conservation Association.

*Contamination Newsletter (Monthly) 1966 - . Contamination Control Laboratories, Inc.

Council for Planning and Conservation Newsletter (Bimonthly) 1969 - . Council for Planning and Conservation

Coyote Research Newsletter (Published irregularly) 1968 - . U.S. Dept. of the Interior

*Cry California (Quarterly) 1965 - . California Tomorrow

Denver Audubon Society Newsletter (Monthly) 1969 - . Denver Audobon Society.

Ecologram (Bimonthly) 1972 - . Colorado Association of Commerce and Industry.

*Environment Action Bulletin (Weekly) 1970 - .
Emmaus, Pa: Rodale Press, Inc. Tone geared to the environmentally-conscious citizen activist.

*Environment Monthly (Monthly) 1969 - .
William Houseman.

*Environment Report (Biweekly, loose-leaf) 1970 - .
Washington, D.C.: Trends Publishing, Inc. Includes an "Environmental Booklist" each issue.

*Environment Reporter (Weekly) 1970 - .
Bureau of National Affairs, Inc. Continually updates state and Federal laws, court decisions, impact studies and includes a weekly environmental overview.

*Environmental Control News for Southern Industry (Monthly) 1971 - .
Enviro-Trol, Inc.

*Environment Education Report (Monthly) 1973 - .
William J. Kardash, Publisher

Environmental Information System Office Newsletter (Published irregularly) 1972 - .
Oak Ridge National Laboratory.

*Environmental Law Reporter (Monthly) 1971 - .
Environmental Law Institute

Environmental Mutagen Society Newsletter (2 times/year) 1969 - .
Environmental Mutagen Society.

*Environmental Spectrum (Bimonthly) 1968 - .
Rutgers University

Environmental Technology (Monthly) 1969 - .
Datatronic Systems Corporation.

*EPA Citizens' Bulletin (Monthly) 1971 - .
U.S. Environmental Protection Agency

Federal Aid in Fish and Wildlife Restoration: Library Reference Service Newsletter (Quarterly) 1967 - . Denver Public Library

*Florida Conservation News (Monthly)1965 - .
Florida Department of Natural Resources

For Land's Sake (Monthly) 1973 - . Federal-State Land Use Planning Commission for Alaska.

Institute for Research on Land and Water Resources Newsletter (Bimonthly) 1970 - . Pennsylvania State U., Institute for Research on Land and Water Resources. Reports seminars, project news, et al in a manner oriented toward the professional.

Institute for Solid Wastes Newsletter (Semi-monthly) 1968 - . Pennsylvania State U., Institute for Solid Wastes.

*Land Pollution Reporter (Bimonthly) 1969 - . Freed Publishing Co.

*Marine Pollution Bulletin (Monthly) 1970 - . Macmillan Journals Ltd., England.

Marine Resources Digest/Marine Biology Digest (Monthly) Arlington, N.J.: Girard Associates, Inc. Covers general marine-related news items on popular level; international in scope.

National Association for Environmental Education Newsletter (Monthly) 1971 - . National Assoc. for Environmental Education.

*National Environmental News (Monthly) 1971 - . Environmental Publications, Inc.

*Natural Resources Law Newsletter (Published irregularly) 1965 - . American Bar Association.

*Nature and Resources (Quarterly) 1965 - . UNESCO.

New Hampshire Audubon News (Monthly) 1966 - . Audubon Society of New Hampshire

New Jersey Air, Water & Waste Management Times, (Bimonthly) 1968 - . New Jersey State Department of Health.

New Mexico Environmental News (Published irregularly) 1970 - . New Mexico Conservation Coordinating Council, Inc.

*New Pollution Technology (Biweekly) 1969 - .
O.Q. diMaria, Publisher.

*Noise Control Report (Biweekly) 1963 - .
Leonard A. Eiserer, Editor and Publisher

*Occupational Health & Safety Letter (Biweekly).
1963 - . Gershen W. Fishbein, Publisher.

Oil Pollution Research Newsletter (Published irregularly) 1971 - . US EPA.

*Potomac Basin Reporter (Monthly except December). Wash., D.C.: Interstate Commission on the Potomac River Basin. A non-technical bulletin for informing the public about problems and plans for development in the Basin.

Potomac View (10 times/year) 1964 - .
Potomac Tuberculosis and Respiratory Disease Assn.

Project Airquarius Newsletter (Published irregularly) 1966 - . R.A. Merriman, Publisher.

React (Monthly) 1970 - . Environmental Action of Colorado.

Response: A Report on Actions for a Better Environment. (Monthly) 1971 - . U.S. Dept. of Agriculture.

ROMCOE Open Space Report (Bimonthly) 1968 - .
Rocky Mountain Center on Environment.

SMEAC Newsletter (Monthly) 1970 - . U.S. Office of Education, ERIC Information Analysis Center for Science, Mathematics and Environmental Education.

Smithsonian Research Reports (Quarterly).
Wash., D.C.: Office of Public Affairs, Smithsonian Institution. Includes environmental activities in its general coverage of scientific research and activities.

*Solid Waste Report (Bi-weekly) 1970 - .
Silver Spring, Md.: Business Publishers, Inc. Covers industrial trends and government activities, calendar of meetings, new publications announcements.

*Special Report: Ecology (Weekly) 1971 - .
Special Reports, Inc.

TIE Report (Bimonthly) 1972 - .
Douglas McConnell, Publisher

Washington Environmental Protection Report
(Semi-monthly) 1966 - . Callahan Publications.

Water and Air Pollution Newsletter (Monthly)
1968 - . International Executive Newsletter Co.

*Water in the News (Monthly) 1965 - .
Soap and Detergent Association.

Wave Hill News (Bimonthly) 1970 - .
Wave Hill Center for Environmental Studies.

Wilderness Conservation Newsletter (Bimonthly)
1971 - . R.A. Merriman, Publisher.

*Zero Population Growth National Reporter
(10 times/year) 1968 - . Zero Population
Growth.

ENVIRONMENTAL INFORMATION
RESOURCES FOR
STATE AND LOCAL ELECTED OFFICIALS

general reference guide

PRIMARY LITERATURE

3. Primary Literature

Sometimes a review of the secondary literature yields information quite sufficient to satisfy a need. Learning, for example, that research reports were published within a two-year period on over two dozen techniques for solving a particular environmental problem may be enough to inform a legislator that a variety of approaches to the problem have been investigated, and which of them seem most promising. His concern may be whether there are legislative, institutional or financial impediments to implementing the various approaches, and he may have neither interest nor need to seek out the original documents.

Other times, however, a text of a law, a judicial decision, a state-of-the-art survey on a specific problem and its solutions, an introductory text or statistical information might be sought by the elected official. Full-text documents, works complete in themselves -- the original articles, textbooks, monographs or recorded measurements -- constitute the primary literature of the field. These contain the detail and the depth that the secondary literature lack.

The primary literature also contains the technical jargon characteristic of the special field in which it is generated. The technical language of environmental literature could be scientific or legal, sociological or statistical, or erudite in a general manner of scholars. The special language and the ideas it conveys may be essential in establishing the authority or reliability of the work to an expert in the author's field. For the layman or for a specialist in a different field, the technical language and style can be a barrier to understanding. Except for the work which conveys information in manner understandable by the concerned layman, the primary literature will not be helpful to the elected official. Instead the official will need someone to interpret the material for him, establish its validity, and outline its implications for the policy question at hand.

There will be, nevertheless, works that are written with the legislator-reader or citizen in mind and others which sacrifice nothing of quality to clear, economic use of standard English.

Types of primary sources are described below. In some cases, examples are identified. For the rest, the secondary literature must be relied upon for guidance.

Textbooks, Handbooks, Manuals, Guidelines.

These are introductory works that summarize what is known about a given subject or what is known about a given problem and how to handle it. In general the contents are less up to date than journal articles because of the greater time required for preparing the book material for publication. These may be the best sources for getting a general overview of a subject and, provided they are well-indexed, they may serve as reference on specific points.

Some works on political aspects of environmental issues are listed below. Newer books can be found in the catalogs of environmental library collections as well.

Anderson, Walt, ed., Politics and Environment: A Reader in Ecological Crisis. Pacific Palisades, Calif: Goodyear Publishing Company, 1970.

Caldwell, Lynton. Environment: A Challenge to Modern Society. Garden City, N.Y.: The Natural History Press, 1970.

Campbell, Rex R., and Jerry Wade. Society and Environment: The Coming Collision. Boston: Allyn & Bacon, 1972.

Cooley, Richard A., and G. Wandes Forde Smith, eds., Congress and the Environment. Seattle: University of Washington Press, 1970.

Dales, J.H. Pollution, Property and Prices. Toronto: University of Toronto Press, 1968.

Davies, Clarence. The Politics of Pollution. New York: Pegasus, 1970.

Goldman, Marshall I., ed. Ecology and Economics: Controlling Pollution in the 70's. Englewood Cliffs. N.J.: Prentice-Hall, 1972.

Grad, Frank P., G.W. Rathjens, and A.J. Rosenthal. Environmental Control: Priorities, Policies, and the Law. New York: Columbia Univ. Press, 1971.

Johnson, Huey, ed., No Deposit--No Return: Man and His Environment. Reading, Mass.: Addison-Wesley, 1970.

Kneese, Allen V., R.V. Ayres, and Ralph C. d'Arge. Economics and the Environment: A Materials Balance Approach. Baltimore: Johns Hopkins Press, 1971.

Reitze, Arnold W., Jr., *Environmental Planning: Law of Land and Resources*. Washington: North American International, 1974. $19.95.

Rockefeller Brothers Fund, Gerald O. Barney, Ed., *The Unfinished Agenda, the Citizen's Policy Guide to Environmental Issues*. New York: Thomas Y. Crowell Company, 160 pp. Appendix. References. $3.95 (paperback).

Thompson, William Norman and Smith, Bradley Fraser, *State Attorneys General and the Environment*. Kalamazoo: The New Issues Press and the Institute of Public Affairs, Western Michigan University, 1975.

Wright, Dell S. *Intergovernmental Action on Environmental Policy: The Role of the States*. Bloomington: Institute of Public Administration, Indiana University, 1967.

For specific problem areas that have been the objects of Federal programs involving state and local participation, there are materials especially prepared for elected officials at these levels of government. The solid waste field, for example, is one which has a large body of literature, accessible, readable and comprehensive. Other areas, for which the range of possible solutions is broader, less well-defined, more complex, in dispute or variable according to different conditions prevailing around the country, are less well documented, e.g. wastewater management planning.

Reports

The reports cited in the secondary literature represent a wide range of sources and types. In general the Federal government publications and the reports on Federally-sponsored research are the best catalogued and indexed. They are also the most easily accessible, once identified. Between Depository Library collections in every state, Superintendent of Documents/ Government Printing Office sales and NTIS sales at relatively low cost a researcher can get copies to read quite readily.

State and local government and areawide agency studies or documents which are entered into the NTIS system are similarly accessible. Quite few of these are processed by NTIS, however. Consequently a large body of documentary literature, particularly relevant to state and local legislators' concerns is very difficult to approach in a systematic way. Commercial indexers have not yet undertaken major efforts to produce research aids in these areas.

University and research institute publications are announced usually at the time of their publication but may be quite difficult to locate using published search tools. (More informal referrals to and through knowledgeable individuals may be the best available means of access to these.)

Many reports are too narrow in scope or technical to be useful to the legislator. Most are too long. Nevertheless almost any sort might conceivably be helpful at one time or another, for example:

--monographs outlining dimensions of a particular problem and recommending an approach to solution

--technical reviews which document and evaluate experimental results under varying conditions

--state-of-the-art surveys or technology assessments which summarize what is known about a given problem or technology and what avenues of current inquiry appear potentially fruitful

--conference proceedings which convey up-to-date information still unpublished

--annual reports of agencies, private organizations or businesses which provide information on activities and, often, citations of publications and names of personnel

--theses and dissertations, while usually confined to specialized topics, may bring together statistics relevant to conditions of immediate local or state concern

--standards and specifications information could be useful to the elected official considering procurement policy.

Specialists familiar with the literature would in many instances be able to make judgments about which available items are pertinent and potentially helpful in answering a given inquiry, and could assemble a small collection of the best materials or extracts from them for the legislators' (or their aides') review.

Journals

EPA's Journal Holdings Report is a good indicator of the large number, range and variety of journals in the environmental field. There are, in addition, newsmagazines and general interest journals which peripherally cover the environmental field.

These publications are particularly important vehicles for communication of current information in the scientific and technical fields. Articles are easily found via the secondary literature, and will deal with narrower aspects of a subject, generally, than books. The specialized journals may be categorized as those produced by lobby groups or industry associations, state publications or professional and trade journals. Depending on their orientation, their contents may be significantly different in level of technicality and authoritativeness. Some examples are cited below.

Professional and Trade Journals[1]

Air Quality Control Digest, Wayne State University (10 times/year) 1969 - .

Aware, Community Performance Publications, Inc. (Monthly) 1970 - .

Biological Conservation, Elsevier Publication Co., Ltd., England (Quarterly) 1968 - .

Bulletin, National Center for Resources Recovery, Inc. (Bi-monthly) 1971 - .

California Water Pollution Control Association Bulletin, California Water Pollution Control Assn., (Quarterly) 1964 - .

Canadian Wildlife Service Report Series, Canadian Wildlife Service, Canada (Published irregularly) 1966 - .

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1. Source: James E. Freeman et al., New Information Services in Social Problem Areas - Energy, Environment and Transportation. Industrial Economics Division, Denver Research Institute, University of Denver, August 1973.

Catalyst for Environmental Quality, Nelson Buhler, Publisher, 1970 - .

Chemical Engineering Deskbook: Environmental Engineering. McGraw-Hill (Annual) 1968 - .

Design and Environment, R.C. Publications (Quarterly) 1970 - .

Eco-logos, John Ragsdale, Editor and Publisher (Quarterly) 1971 - .

Ecology Law Quarterly, California University School of Law, Berkeley, 1971 - .

Ecology and Conservation Series (Text in English and French) UNESCO, France (Published irregularly) 1970 - .

Ecology of Western North America, University of British Columbia, Canada (Biennial) 1965 - .

Ecology Today, University of Colorado (Bimonthly) 1972 - .

Environment Law Review, Sage Hill Publishers, Inc. (Annual) 1970 - .

Environmental Affairs, Boston College Law School (Quarterly) 1971 - .

Environmental Data Service, U.S. Dept. of Commerce (Bimonthly) 1971 - .

Environment Tomorrow, University of Victoria, Canada (Quarterly) 1970 - .

Environmental Pollution, Elsevier Publishing Co., Ltd., England (Quarterly) 1970 - .

Environmental Science & Technology, American Chemical Society, (Monthly) 1967 - .

Filtration Engineering, Filtration Publishing, Inc. (Monthly) 1969 - .

Industrial Ecology, Magazines for Industry, Inc. (Quarterly) 1970 - .

Industrial Water Engineering, Target Communications, Inc. (Monthly) 1963 - .

International Journal of Environmental Studies, Gordon and Breach Science Publishers, England (Quarterly) 1970 - .

International Pollution Control Magazine, Scranton Publishing Co., Inc. (Quarterly) 1970 - .

Journal of Applied Ecology, The, Blackwell Scientific Publications Ltd., England (Published irregularly) 1964 - .

Journal of Environmental Education, The, University of Wisconsin (Quarterly) 1970 - .

Journal of the Society of Environmental Engineers, The Modine Press Ltd., England (Quarterly) 1972 - .

Land and Water Review, University of Wyoming (Quarterly) 1966 - .

Natural Resources Lawyer, American Bar Association, (Quarterly) 1968 - .

Noise and Vibration Bulletin, Multi-Science Publishing Co. Ltd., England (Monthly) 1970 - .

Nuclear Energy and the Environment FACTSFILE, American Nuclear Society (Monthly) 1971 - .

Ocean Product News, Chandler Publishing, Inc. (Quarterly) 1968 - .

Pollution Control Journal, Louis Thomas, Publisher, (Monthly) 1970 - .

Pollution Engineering, Technical Publishing Co. (Bimonthly) 1969 - .

Pollution Equipment News, Rimbach Publishing, Inc. (Bimonthly) 1968 - .

Prentice-Hall Executive Report, Prentice-Hall, Inc. (Bimonthly) 1970 - .

Resources Review, Norfolk Conservation District (Quarterly) 1969 - .

Reuse/Recycle, Technomic Publishing Co. (Monthly) 1971 - .

Waste Age, Three Sons Publishing Co., (Monthly) 1970 - .

State Publications

Arkansas Game and Fish, Arkansas Game and Fish Commission (Quarterly) 1968 - .

Environment: Illinois, Environmental Protection Agency of the State of Illinois (Quarterly) 1970 - .

Montana Outdoors, Montana Fish and Game Dept. (Monthly) 1966 - .

Nevada Outdoors and Wildlife Review, Nevada Dept. of Fish and Game (Quarterly) 1967 - .

New Hampshire National Resources, New Hampshire Fish and Game Department (Quarterly) 1969 - .

Ohio Woodlands/Conservation in Action, Ohio Forestry Association, Inc. (Quarterly) 1963 - .

Our Daily Planet, New York Mayor's Council on the Environment (Monthly) 1971 - .

RE-SEARCH, New Jersey Agricultural Experiment Section (Quarterly) 1968 - .

General Interest Serials

All Clear, All Clear Publishing, Inc. (10 times/year) 1969 - .

Backpacker, Backpacker, Inc. (Quarterly) 1973 - .

Better Recreation, Better Recreation Congress, (Quarterly) 1973 - .

Conservation of Nature and Natural Resources (Editions in English and French) Council of Europe, France (Annual) 1967 - .

Defenders of Wildlife News, Defenders of Wildlife (Quarterly) 1964 - .

Ecologist, Darby House, England (Monthly) 1970 - .

Ecology Action, Ecology Action Education Institute (Quarterly) 1970 - .

Environmental Action, Environmental Action, Inc. (Biweekly) 1970 - .

Environmental Quality, Environmental Awareness Associates (Quarterly) 1970 - .

Raw Data

Selectivity and validation are the keys to use of raw data by the elected official. Brief summaries in tabular, graphic or map form with accompanying narrative on their significance are helpful. Computer print-outs would not be. Although data such as monitoring measurements and other statistics must be drawn upon for legislators' briefing, some intermediary must be available to prepare them for presentation. This may be someone either at the source, in the direct service of the elected official, or an information specialist familiar with the material.

For the local elected official deeply involved in programmatic and budget decisions, data needs are particularly great. Much of the required data may need to be generated or assembled for the specific task at hand.

Legislation, Statutes, Regulations, Hearings

Locally-generated items in these categories may be relatively easy to find and to interpret. Up-to-date information from other states and jurisdictions for comparative purposes may require more effort to achieve. Secondary literature and non-documentary sources, both, may identify certain points or sources. Subjects of particular interest to business and industry seem to be the best-documented. Clearinghouses of information in these areas especially oriented toward the policy-maker's perspective are less well developed.

Nonprint Media

Understanding of some processes and problems is best acquired through direct experience or visit to a site. Since this is not always possible, films and videotape can be a valuable substitute. These media are generally less well catalogued and indexed than printed material but they should not be overlooked as significant sources of information.

Retrieval and handling of these items require more technical facilities and equipment than printed materials, but the availability of facilities is becoming more widespread. With greater availability, the usefulness of these media will grow.

Maps

Maps can be a very important aid in conceptualizing the geographical distribution of certain problems, the combined effects of various problems on a given area, the location of impacts emanating from a project and the areas affected by particular environmental actions. They are also useful for conveying environmental policy, for example, in identifying lands or waters subject to statutory protection and regulations or conditions related to the statutes.

Maps are, as a category of information source, generally not accessible through the secondary literature, but rather from their respective producers.

Environmental Impact Statements

Federal Environmental Impact Statements required under the National Environmental Policy Act of 1969 are systematically catalogued and announced to the public. They are also available through Information Resources Press, 2100 M Street, N.W., Washington, D.C. 20036.

Much background is documented in the EIS in connection with impacts of specific projects or programs. It could be monitored by policy-makers at the State and local levels who wish to consider combined impacts or get a comprehensive view of what is developing in their respective jurisdictions over time. Information of this sort could be a very helpful base for legislators considering trends and alternative policy actions; and it should be tapped when possible in preparing legislator briefings.

ENVIRONMENTAL INFORMATION
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general reference guide

CONTENTS OF MATERIAL PACKET

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General Reference Guide Packet Contents

Environmental Information Resources for State and Local Elected Officials

U.S. Environmental Protection Agency

Information from the Library of Congress, Science and Technology Division, Washington, D.C.: brochures and examples of material from the Referral Center, Reference Section, and Monthly Checklist of State Publications.

Pamphlets and brochures from public interest groups, e.g.:

National Conference of State Legislators
Model Interstate Scientific and Technological Information Clearinghouse (MISTIC)
Small Towns Institute
Council of State Governments
American Society of Planning Officials' Planning Advisory Service (PAS)
League of Women Voters
National League of Cities/U.S. Conference of Mayors
Old West Regional Commission
American Institute of Planners

Government sources of environmental information.

Chart:	"EPA Programs in Support of State, Regional, and Local Environmental Planning"
Pamphlets:	"Public Inquiries Offices of the U.S. Geological Survey" "Finding Your Way Through EPA"
Directories:	Directory of EPA, State, and Local Environmental Quality Monitoring and Assessment Activities, Office of Research and Development, EPA Directory of Computerized Environmental Information Resources, Kentucky University Institute for Mining and Minerals Research, October 1976. Environmental/Socioeconomic Data Sources, Headquarters, U.S. Air Force Directorate, Engineering and Services, and U.S. Department of Commerce, Bureau of the Census, October 1976. State and Local Environmental Libraries, U.S. EPA and National Oceanic and Atmospheric Administration, November 1976.

Packet Contents, Cont'd.

Government reports and reprints of technical studies.

NTIS brochure and sample publications from U.S. Government Printing Office (GPO) and National Technical Information Service (NTIS)

Sample conference and training program announcements.

Environmental impact statement information, sample publication.

Brochures describing current awareness publications and information services.

Examples of reports on environmental subjects obtained through information sources cited in the General Reference Guide.

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APPENDIX B: ENVIRONMENTAL PROGRAMS FOR WHICH STATES OR LOCAL GOVERNMENTS HAVE IMPLEMENTATION RESPONSIBILITY UNDER EPA PURVIEW

Environmental Programs for Which States or Local Governments Have Implementation Responsibility Under EPA Purview

AIR QUALITY

1. State Implementation Plans

Legislative mandate: Clean Air Act (P.L. 91-604 as amended Sec. 110) States may delegate to sub-State agencies.

By May 31, 1977 states are to meet primary National Ambient Air Quality standards, and secondary standards within a reasonable time thereafter. The State Implementation Plan should provide for meeting, and afterward maintaining, the National Ambient Air Quality Standards. Control strategies are to focus on reducing pollutant emissions as necessary to meet standards and to accommodate new development without exceeding the standards. Section 105 of the Clean Air Act provides for funding of State and local air polllution control agencies and up to 2/3 of planning costs, administered through the EPA Regional Offices.

EPA contacts for policy and procedural guidance:

Office of the Asst. Administrator for Air and Waste Management,
Office of Air Quality Planning and Standards, and
Office of Transportation and Land Use Policy;

for monitoring, implementation and enforcement:

EPA Regional Offices

2. Prevention of Significant Deterioration

Legislative mandate: Clean Air Act (P.L. 91-604, Sec. 101 as interpreted by the Courts and implemented through Sec. 110. States may delegate responsibility to sub-State (local) areas.

States must set a limit on permissible deterioration of air quality for those areas which are now better than national standards; and must establish procedures and review program for proposed new sources of emission to ensure that air quality not fall below the set limit.

EPA contacts for policy and procedural guidance:

Office of the Asst. Administrator for Air and Waste Management,
Office of Air Quality Planning and Standards, and
Office of Transportation and Land Use Policy;

for monitoring, implementation and enforcement:

EPA Regional Offices

AIR QUALITY (cont'd)

3. Air Quality Maintenance
Legislative mandate: Clean Air Act (P.L. 91-604 as amended Sec. 110)
States may delegate to sub-State agencies.

This program seeks to develop a strategy for maintaining air quality in conformance with standards over a period 10-20 years in the future. States are required to do analysis and planning on a regional scale (usually defined as SMSA's or natural resource development regions) and to devise programs for future air quality. Their strategies are to be updated every five years and are to be coordinated with comprehensive land use planning and comprehensive transportation planning for the respective planning areas as well as with Section 208 wastewater management plans. Funding for this work is available under Section 205 of the Clean Air Act and through the EPA Regional Offices.

EPA contacts for policy and procedural guidance:

Office of the Asst. Administrator for Air and Waste Management
Office of Air Quality Planning and Standards
Office of Transportation and Land Use Policy

for monitoring, implementation and enforcement:

EPA Regional Offices

4. Transportation Control Plans
Legislative mandate: Clean Air Act (P.L. 91-604 as amended Sec. 110)
State or State-delegated local (sub-State) agencies are responsible.

States are to prepare short range (3-5 years) strategies for reducing carbon monoxide and hydrocarbon emissions from motor vehicles below the levels which can be achieved by the Federal Motor Vehicle Emissions Control Program and the Stationary Source Regulations alone. Federal funding is available for this planning work under Section 205 of the Clean Air Act and through the EPA Regional Offices.

EPA contacts for policy and procedural guidance:

Office of the Asst. Administrator for Air and Waste Management
Office of Transportation and Land Use Policy

for monitoring, implementation and enforcement:

EPA Regional Offices

AIR QUALITY (cont'd)

5. New Source Review
Legislative mandate: Clean Air Act (P.L. 91-604 as amended Sec. 111 and 112)
States are responsible for this program but may, in some situations, delegate the tasks to sub-State agencies.

For new stationary sources that are considered to be significant contributors to air pollution, the States are to establish a pre-construction review and permit process which includes the setting of performance standards. The specific sources which come within this program are to be designated by the States. Funding is available under Section 205 of the Clean Air Act and through EPA's Regional Offices.

EPA contacts for policy and procedural guidance:

Office of the Asst. Administrator for Air and Waste Management
Office of Air Quality Planning and Standards

for monitoring, implementation and enforcement:

EPA Regional Offices

WATER QUALITY

1. State and Areawide Water Quality Management Planning
Legislative mandate: Federal Water Pollution Control Act (FWPCA) Amendements of 1972 (P.L. 92-500, Sec. 106, 303 (e) and 208.)
Responsible bodies of government are Areawide waste treatment management agencies and/or Statewide management agencies.

This program is directed toward those areas with substantial water quality problems (mostly urbanized and industrial areas but also natural resource development regions) for which solutions will involve an entire metropolitan area or region. Problem areas of this sort will, in most cases, have to be identified and so designated by the States. EPA-designated areawide wastewater management agencies/or the States are to assess future (20 year) needs of their respective areas of responsibility and to plan for meeting these needs. The scope of planning activity is to include establishing priorities for construction of wastewater treatment facilities, plans for non-treatment approaches to wastewater management (e.g. land use controls), preparing an implementation schedule. Extensive coordination with other agencies and programs involved in land and water use and economic development as well as environmental protection, is necessary. Funding is available to cover 100% of the planning costs.

EPA contact: Office of Water and Hazardous Materials, Water Planning Division

2. Waste Treatment Facilities Planning
Legislative mandate: FWPCA Amendments of 1972 (P.L. 92-500, Sec. 201 et seq.)
Responsibility is laid to local governmental jurisdictions and/or special sewage districts.

When new construction of municipal wastewater treatment facilities is determined to be the most cost-effective means of meeting effluent guidelines and water quality standards, and satisfying social and economic development needs, then this program provides funds for planning and building such facilities. Funds are allocated in a step-by-step fashion on review and acceptance of plans by EPA. The steps are: planning, construction design and finally, the actual building.

EPA contact: Office of Water and Hazardous Materials, Municipal Construction Division

3. National Pollutant Discharge Elimination System (NPDES)
Legislative mandate: FWPCA Amendments of 1972 (P.L. 92-500, Secs. 301, 302, 306, 307, 308, 309, and 402). EPA delegates authority to States with approved permit programs.

All point sources must have permits, renewable every five years at most, which are subject to monitoring and enforcement. Through the NPDES program States and EPA are to have a tool for controlling effluents in order that water quality standards be maintained. By 1977 all municipalities are to provide in their public wastewater treatment works secondary level treatment, and by 1983, the best practicable treatment technology. Non-municipal point sources are to have in place and use the best practicable treatment technology economically feasible by 1977 and the best treatment technology available by 1983.

EPA contact: Office of Enforcement, Office of Water Enforcement

WATER QUALITY (cont'd)

4. Clean Lakes

Legislative mandate: FWPCA Amendments, 1972, P.L. 92-500, Sec. 314. States are to designate grant recipients.

The program deals with non-point source pollution in lakes. Its approach includes identification and classification of publicly-owned fresh water lakes in the States, development of procedures, processes and methodology for controlling sources of lake pollution, planning for restoration of lake water quality and providing financial assistance for implementing restoration programs.

EPA contact: Office of Water Planning and Standards, Criteria and Standards Division

DRINKING WATER SUPPLY

1. Public Water Supply Systems

Legislative mandate: Safe Drinking Water Act, P.L. 93-523, Sec. 1411. State may choose to implement the program; EPA will implement it if the State fails to do so.

Objectives of the program are to protect public health by developing national primary drinking water regulations for maximum contaminant levels, to promulgate national secondary optional regulations relating to taste, odor, and appearance of drinking water. States may receive grants through EPA for public water system supervision programs and may receive technical assistance as well. Eligible public water systems are those which serve at least 25 individuals.

EPA contact: Office of Water and Hazardous Materials, Office of Water Supply

2. Underground Injection Control

Legislative mandate: Safe Drinking Water Act, P.L. 93-523, Sec. 1421. States may choose to implement the program; EPA will implement it if they do not.

This program is designed to assist States in establishing program with primary responsibility for the implementation of underground injection control regulations. It also provides grants to the States for carrying out programs for protection of underground drinking water sources.

EPA contact for policy and technical guidance:

Office of Water and Hazardous Materials, Office of Water Supply

SOLID WASTE

1. State Solid Waste Management Planning
Legislative mandate: Solid Waste Disposal Act of 1965, as amended, (P.L. 94-580), Sections 4002, 4003, and 4007.
Implementing bodies: States.

EPA must publish guidelines for state solid waste management plans, in conformance with the objectives of Section 4001. State plans must meet minimum requirements set forth in Section 4003 and by EPA guidelines. In order to be eligible for financial assistance under the Act, a State plan must receive the approval of the Administrator. Federal grants are available to assist States in development and implementation of State plans. Authorization is $30,000,000 for FY 78 and $40,000,000 for FY 79. (No appropriations yet made.) Technical assistance is also available.

Responsible EPA Offices: Office of Solid Waste, EPA Regional Offices, Solid Waste Management Representative

2. Technical Assistance for Solid Waste Management
Legislative mandate: Solid Waste Disposal Act of 1965, as amended, (P.L. 94-580), Sections 4008 (d), 2003
Implementing bodies: State and local government, with provision of assistance from EPA.

Teams of personnel known as "Resource Conservation and Recovery Panels" are to be provided to States and local governments at their request for technical assistance on particular solid waste management, resource recovery, and resource conservation projects. The service is free of charge. Section 4008 (d) provides that EPA may, in addition, provide technical assistance to State and local governments for purposes of developing and implementing State plans. A lot less than 20 percent of the appropriation made for general administrationof the Act is to be spent for the panels, yielding a maximum possible expenditure of $7,600,000 in FY 78 and $8,400,000 in FY 79.

Responsible EPA Office: Office of Solid Waste

3. Solid Waste Guidelines
Legislative mandate: Solid Waste Disposal Act of 1965, as amended, (P.L. 94-580), Sections 1008 and 6004.
Implementing bodies: States and Federal agencies.

EPA develops suggested guidelines for solid waste management by States and localities. The guidelines describe levels of performance and appropriate methods of control that provide at a minimum: (1) protection of public health and welfare, (2) protection of ground and surface

SOLID WASTE (cont'd)

waters from leachates, (3) protection of quality of surface waters from runoff through compliance with effluent limits of FWPCA, (4) protection of ambient air quality through compliance with new performance standards or requirements of Clean Air Act, (5) disease and vector control, (6) safety, and (7) esthetics. In addition, EPA provides criteria by which the States must designate the open dumping practices prohibited under the Act. The guidelines also include information on location, design, and construction of solid waste management facilities.

EPA is responsible for issuing guidelines for identifying regional areas with common solid waste problems and determining appropriate units for planning regional solid waste management services.

Any Federal agency which generates solid waste (under circumstances described in Section 6004) or is involved in any solid waste disposal activities is required to comply with the guidelines recommended under Section 1008.

Responsible EPA Offices: Office of Solid Waste, Office of the Administrator

HAZARDOUS WASTE

1. State Hazardous Waste Management Planning

Legislative mandate: Solid Waste Disposal Act of 1965, as amended (P.L. 94-580), Subtitle C
Implementing bodies: States, or in absence of State action, EPA

EPA writes guidelines to assist States in development of State hazardous waste programs. States may operate an existing or new program in lieu of the Federal program if the State program is approved by EPA as substantially equivalent to the Federal program (See Hazardous Waste Guidelines section below for areas of action mandated). Federal grants and technical assistance are available to assist the States in developing hazardous waste management plans. FY 78 and FY 79 authorizations are $25,000,000.

Responsible EPA Office: Office of Solid Waste

2. Technical Assistance for Hazardous Waste Management

Legislative mandate: Solid Waste Disposal Act of 1965, as amended (P.L. 94-580), Subtitle H, SEctions 2002 and 8001 (c4)
Implementing bodies: EPA, States and localities.

EPA may detail personnel from EPA to agencies eligible for assistance under Section 8001, including State, interstate, and local public

HAZARDOUS WASTE, (cont'd)

agencies. This technical assistance, along with financial assistance available through this section, is to be used in the conduct of research, investigations, experiments, training, demonstrations, surveys, public education programs, and studies, and in carrying out other purposes of the Act.

Responsible EPA Office: Office of Solid Waste

3. Hazardous Waste Guidelines
Legislative mandate: Solid Waste Disposal Act of 1965, as amended (P.L. 94-580), Subtitle C, Subtitle D, Section 4002.
Implementing bodies: States, or in absence of State action, EPA

EPA must develop criteria for identifying hazardous wastes and prepare a list which will then be subject to the provisions of Subtitle C. The Governor of any State may request EPA to add other hazardous wastes.

EPA sets performance standards for recordkeeping, labeling, containerization, information needs, trainsport, treatment, storage and disposal of hazardous wastes. Included among these standards are requirements for a manifest system for keeping track of all hazardous waste generated, and a permit system for all hazardous waste treatment, storage and disposal facilities.

Responsible EPA Office: Office of Solid Waste

RADIATION

1. Radiation Program
Legislative mandate: The sources of EPA's Radiation Protection authorities include: Public Health Service Act, Ocean Dumping Act, Clean Air Act, Federal Water Pollution Control Act. Also, the functions of the Federal Radiation Council were transferred to EPA in 1970.
Implementing bodies: State agencies are responsible for assisting local authorities to implement radiological emergency response planning.

EPA has proposed standards and guidelines on a wide variety of radiation issues, such as guidelines for phosphate land recovery, transporting radioactive materials, and recommendations for exposure levels in the natural environment. EPA provides technical assistance to State agencies in developing radiological emergency response plans, but no funding for State programs.

Responsible EPA Offices: Office of Air and Waste Management
Office of Radiation Programs

PESTICIDES

1. Experimental Pesticide Use Permits
Legislative mandate: Federal Insecticide, Fungicide and Rodenticide Act (P.L. 92-516), as amended by P.L. 94-140, Section 5 (f) [FIFRA]
Implementing bodies: States

States are permitted to issue Experimental Use Permits in accordance with a State plan approved under the provisions of Section 5 (f) of FIFRA and in conformance with the regulations in that Action. This part of the legislation is designed to allow the gathering of data necessary to register the pesticide(s) under Section 24 (c) of the Act (see below).

Responsible EPA Offices: Office of Water and Hazardous Materials
Office of Pesticide Programs

2. State Pesticide Registration
Legislative mandate: FIFRA (P.L. 92-516), as amended by P.L. 94-140, Section 24 (c).
Implementing bodies: States

States are permitted to register with EPA pesticide products intended to meet special local needs, such as usage on specialty crops and on occasional or resistant pests. Interim certification is issued only after certification by the Administrator of compliance with the standards of Section 24 (c) of FIFRA. This part of the legislation is designed to enable the State to quickly respond to local situations and make available to pesticide applicators products that might otherwise be unavailable.

Responsible EPA Offices: Office of Water and Hazardous Materials
Office of Pesticide Programs

3. Cooperative Pesticide Enforcement
Legislative mandate: FIFRA, Section 22 (b) and Section 23 (a)
Implementing bodies: States

Federal grants-in-aid (contingent upon FY 77 budget action) are available to assist States in implementing State and Federal pesticide laws, developing inspection and laboratory procedures, and developing a general strategy for the surveillance and enforcement of the use of pesticides. This program is particularly directed toward control over the manufacture, formulation, distribtuion, transportation, use and disposal of pesticides.

Responsible EPA Offices: Office of Enforcement, Pesticides Enforcement Division

PESTICIDES, (cont'd)

4. Certification of Pesticide Applicators
Legislative mandate: FIFRA, Section 4
Implementing bodies: States

States are required to develop a plan for the certification of applicators of restricted use pesticides. This plan must include the State program, policy, framework for local government planning, regulations, standards and recommendations for legislative action. After October 21, 1977, only those individuals certified or working under the direct supervision of a certified applicator will be permitted to use restricted use pesticides. Federal funding was $9.6 million in FY 76 and $5.2 was proposed for FY 77, available through grants to State lead agencies and the State Cooperative Extension Service.

Responsible EPA Offices: Water and Hazardous Materials
Office of Pesticide Programs

NOISE

1. Technical Assistance for Noise Control
Legislative mandate: Noise Control Act of 1972, P.L. 92-574, Section 14(2)
Implementing bodies: State and local governments are responsible for implementing noise control programs, and may impose sanctions for non-compliance.

States and localities are encouraged to adopt effective noise control programs and to enforce standards through monitoring and assessment, with technical assistance from EPA, but no direct financial assistance. EPA is to develop a national noise monitoring and assessment approach, and improved methods and standards for the measurement and monitoring of noise. EPA assists the States by (1) developing State and community model noise legislation, (2) conducting workshops for training State and local noise control officials, (3) reviewing and commenting on proposed noise ordinances, (4) lending noise monitoring equipment, and (5) conducting noise monitoring and surveys. All State and local governments are eligible for assistance.

Responsible EPA Offices: Office of Air and Waste Management, Office of Noise Control Programs
EPA Regional Office Noise Representative